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QUESTIONS OF THE DAY.

To/
Charles William Eliot L.L.D. &c

with the compliments of
The Author

EXTRACTS FROM LETTERS RECEIVED BY THE AUTHOR OF JOINT-METALLISM

"Your plan is certainly novel and ingenious."

DAVID A. WELLS.

February 24, 1894.

"Much impressed by your argument."

H. C. POTTER.

February 22, 1894.

"I think your statement of the question most admirable and convincing."

DAVID H. GREER.

February 27, 1894.

"I find your views on this important subject very convincing."

W. T. HARRIS.

United States Commissioner of Education.

April 14, 1894.

JOINT-METALLISM

A PLAN BY WHICH GOLD AND SILVER TOGETHER, AT RATIOS ALWAYS BASED ON THEIR RELATIVE MARKET VALUES, MAY BE MADE THE METALLIC BASIS OF A SOUND, HONEST, SELF-REGULATING, AND PERMANENT CURRENCY, WITHOUT FREQUENT RECOININGS, AND WITHOUT DANGER OF ONE METAL DRIVING OUT THE OTHER

BY

ANSON PHELPS STOKES

THIRD EDITION

COMPRISING

PART I.—JOINT-METALLISM—APPENDIX

PART II.—JOINT-METALLISM *VS.* BIMETALLISM AND MONOMETALLISM

PART III.—HISTORY OF THE SCIENCE OF MONEY AND COINAGE

PART IV.—THE APOTHEOSIS OF CREDIT—OBJECTIONS ANSWERED AND HONEST LEGISLATION DEMANDED.

G. P. PUTNAM'S SONS

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PREFACE TO THE THIRD EDITION.

The second edition was published on the fifth of this month, and I am informed that it is out of print.

I had planned in the third edition to discuss credit and paper currency at some length. I have not time to do so now, and if I ever undertake this, it will be in a separate volume.

Since the second edition of *Joint-Metallism* went to press, the Government gold reserve has again been reduced below the minimum of one hundred million dollars, as it was evident it would be; and the President's Message and the Report of the Secretary of the Treasury have been published. I am glad to note that they do not contain any recommendation

of "coinage on Government account," which was suggested in the Secretary's letter quoted on page 171. But these state papers and the Bill reported by the Committee on Banking and Currency propose what is, in my opinion, a dangerous and unconstitutional system of paper currency, based on general assets, etc.

It is evident that the modern exaggerated theory of credit, of which that very clever barrister and economist, Henry Dunning Macleod, is the most prominent promoter, is threatening the world with general disaster.

Adam Smith has well pointed out how a mistaken theory of wealth caused many European wars during the seventeenth and eighteenth centuries.

Macleod says that Adam Smith, John Stuart Mill, J. B. Say, etc., "had not the faintest conception of the great juridical principles of credit," and that this department of economics he has made his own. He writes: "The true function of credit is to bring into commerce the present values of future profits," and that "Ri-

varol well said, 'Man conquers space by commerce, and time by credit.'"

I regret I have neither time nor space to quote further or to comment fully on this theory, but some of the results of its workings are evident on all sides in bankrupt states, railroads, and speculative companies, and further developments are fast approaching.

It is a remarkable thing in economic literature that Macleod, the apostle of credit money, should now claim to derive support from the writings of Oresme and Copernicus, who were the great champions of sound metallic money, based on the market values of the two precious metals.

If "credit is as good as money," as Macleod says it is, and if Government credit is the best credit, then fiat money is the best money, and the name of Macleod should be exalted in the gate of the Greenbackers.

Believing there is great danger to the community in the seductive theory of credit which Macleod so elaborately and so ably advocates, and which is admittedly

an attempt to discount future profits, or, as he expresses it, "to bring into commerce the present values of future profits," I have added in Part IV. of this edition a short chapter on "The Apotheosis of Credit."

May I ask all readers of Part II. and Part III. to first read the Preface to the Second Edition.

A. P. S.

NEW YORK, December 22, 1894.

PREFACE TO THE SECOND EDITION.

The first edition of *Joint-Metallism* consisted largely of letters hurriedly written for the newspapers.

A second edition being called for now, I add, in Part II., commencing page 119, a more thorough presentation of the plan of joint-metallism, with some considerations intended to refute objections, and references to further weighty authorities on the science of money, whose opinions are entitled to especial attention.

On page 5 I suggested some details which might facilitate the establishment of the system here. But these details as to the coin to be selected as the gold standard, the times when and the official by whom the declaration of the Govern-

ment ratio shall be made, and the periods to be considered in fixing this ratio, are, of course, not essential.

In reading very many books on money and coinage, I find :

First. That some of the older writers on this subject far surpass almost all the modern ones in genius, reasoning, force, and clearness.

Second. That, as compared with other sciences, there appears a strange general ignorance of the history of monetary science.

Oresme, the great master of this science in the fourteenth century, was acquainted with the writings on this subject of Justin, Saint Augustine, Cassiodorus, etc.

But Copernicus, the great astronomer and economist of the sixteenth century, was ignorant of Oresme's work in this field, and Bacon, Locke, and Newton, in the seventeenth century, did not know of these writings of Oresme and Copernicus, and the English economic writers of the eighteenth century generally ignored the earlier continental monetary experiences.

Roscher, Professor of Political Economy at Leipsic, when he found a copy of Oresme's work in 1862, supposed that "this diamond of the first water hidden in the dust" had been entirely unknown for many years. Its existence, was, however, known to several French writers, but its importance not appreciated. That this treatise had caused the reform of the French coinage in the fourteenth century was generally forgotten until the publication, in 1864, of Wolowski's[1] *Étude sur le Traité de la Monnaie de Nicole Oresme*, and most recent writers show little knowledge of any of these great authorities, and total ignorance of their most important works.

It appears that at a critical period when it became necessary to reform the coinage, in order to save the country from ruin, some philosopher would adequately study up the matter, and prepare a plan which met the emergency, and then his work was soon forgotten. Old vicious coinage plans would then again be resorted to in order to cheat the people. Again there

[1] Read before the Institute of France August 14, 1862.

would be a crisis in affairs, then another philosopher would save society by monetary reform ; and then his work would, in turn, soon be forgotten.

In Oresme's time the coin had been so debased that it contained only one eighty-sixth part of its nominal quantity of silver ; the late King John, strangely called "The Good," having ordered the masters of the mint to exactly imitate the old coins in base metal, charging them under the most extreme penalty of treason to keep this fraud secret. Oresme discovered and explained why bad money drove out good money.[1]

One hundred and sixty years later Copernicus rediscovered how bad money was driving good money out of the great kingdom of Poland, which then embraced Prussia, etc.

Similar conditions of affairs were afterwards repeatedly discovered in England and elsewhere.

Some of the men who brought about great reforms of the coinage were the very greatest philosophers of their time.

[1] See note, page 154.

But, although they convinced those then in authority, their work in monetary reform was not generally understood or appreciated. The hidden but momentous workings of changes in the basis of money are among the things no people have as yet shown an aptitude to understand.

Even to-day the importance of the following simple facts appears difficult of common comprehension, viz.: *That general prosperity in our country depends largely on the prices obtainable abroad for our chief exportable staples; and that the fall in these is directly caused by the demonetization of silver, because for every pound sterling which a planter in India, etc., receives for cotton or wheat sold in England, he can now employ twice as many native laborers as he could a few years ago, for their wages remain the same in silver coin.*

In a country where monetary questions must be decided finally by popular vote, the importance of a right understanding of the science of money cannot be overestimated; and its thorough study ought

to appeal to those who have the necessary time and training.

As most of the present depression in trade, agriculture, and other industries is clearly traceable to legislative ignorance of the history of money, and to attempts to retry unscientific experiments, the duty of the hour is to encourage and to facilitate real study of the money problem, which is again about to be discussed in Congress and in the newspapers, and ought not to be decided by ignorance, party spirit, and *ad captandum* appeals.

Anarcharsis criticised the constitution of Athens because the Athenians had wise men to debate and fools to decide.

O happy Athenians! if you had always wise men to debate!

I do not claim to be learned or wise; I desire, like Oresme, "to submit what I have written to the correction of wise and prudent men, for, as Aristotle says, the civil needs are often doubtful and uncertain." But I do claim to have made some little study of the currency question, and I desire to study it more, and to see

more general and scientific study of it in our colleges, newspapers, and legislatures, among those who are called upon to lead public opinion. I am sure I will not disoblige these by expressing my humble judgment that the best and most important foundation for this study is Oresme's treatise on the "*Origin, Nature, Law, and Mutations of Money.*"

Professor Roscher well says of this great work:

"In order to rightly comprehend the present state of all science and from this to grasp its future, it is indispensable to know the past, so when we come to climb higher near the unseen sources of some truth, we experience a satisfaction, etc."

His expression loses something in my feeble translation.

In Part III., in this edition, I give some account of Oresme and his work written about 1366, and some notice of the treatise on money written by Copernicus in 1526.

The opening sentence of this latter work I beg permission to translate here:

"However innumerable are the ills

which lead to the fall of kingdoms, principalities, and republics, these four, in my judgment, are the most formidable: discord, mortality, sterility of land, and badness of money. For the first three, the evidence is so apparent that no one can be ignorant of it. But the fourth, concerning money, excepting some men of great ability, very few persons consider or understand it, because it is not by a single blow, but little by little, in an occult manner, that it overthrows the state."

Our country does not suffer from the first three of the above named causes. We are a united people, our death rate is comparatively low, and our land fertile, but we are in danger of bad money.

Of all bad money *fiat* paper money is the worst.

In our legislation we have forgotten the maxims of our Constitution, which made gold and silver the legal tender. We have forgotten the teachings of Oresme, Copernicus, Bacon, Locke, Newton, and a host of other philosophers, that the only honest measure of the value of money is

the value of the bullion in the coin. We have forgotten that all experience has shown that the only way to keep our government currency always safe and good is to permit none to be issued that does not have an equal amount of coin behind it, and that this coin must be always convertible into bullion at a trifling cost.

In the old times the bad money was usually money fraudulently alloyed, because that was the easiest way to take advantage of the popular ignorance of the hidden effects of the money-stamping power. But at times when the governments had large sums to receive, they would cheat by suddenly increasing the amount of silver in the coins, and insisting on being paid in the new coinage. As Macleod expresses it: "When they had debts to pay they cried the coin up. When they had debts to receive they cried the coin down." The mint rates in France were often changed more than a dozen times in a year.

In our times it has been found easier

and more profitable to take advantage of this popular ignorance by reducing the total metallic basis of the currency.

Both these schemes produce bad and dangerous money and cause great injustice and loss to the people.

Five-cent cotton, fifty-cent wheat, low and diminishing gold reserve, the issuing of Government bonds in time of peace, falling wages and decreased employment, these things are making the people think on the currency question. Now is the time for enlightened discussion to find the principles upon which monetary science is bottomed, and to establish our currency on the best and most solid, safe, honest, and permanent basis.

Believing that joint-metallism conveniently provides this basis, I ask for it the candid consideration of competent critics.

A. P. S.

STOKES BUILDING, NEW YORK.
23 November, 1894.

PREFACE TO FIRST EDITION.

The *first* of the following Letters on Joint-Metallism appeared in the *New York Times* February 18, 1894. It was printed also in the *New York Tribune* on the following day, and in the *New York World* February 24, 1894.

The second Letter on Joint-Metallism appeared in the *New York Times* March 26, 1894, and in the *New York Tribune* April 17, 1894.

Editorial articles in the *New York Evening Post* March 30th and April 5th caused the *third* and *fourth* Letters on Joint-Metallism to be addressed to that paper.

Extracts from these Letters, not always fairly representing them, have appeared in various parts of the country, where among the typographical errors may be noted the word "vetoes" being printed "votes," "ratio" printed "ration," "economic" printed "economical," etc.

Numerous inquiries, some of them from those who have only seen part of the correspondence, and the request of Messrs. G. P. Putnam's Sons have led to the present publication.

The *fifth* Letter on Joint-Metallism was not addressed to any newspaper, as it has to be read in connection with the many facts, figures, and statements given in the Appendix.

In the Appendix, among other matters, it may be seen how the admissions of leading monometallists strongly favor Joint-Metallism.

President Cleveland said in his Message March, 29, 1894 :

"I hope a way will present itself in the near future for the adjustment of our monetary affairs in such a comprehensive and conservative manner as will afford to silver its proper place in our currency."

The design of these Letters is to point out such a way.

A. P. S.

STOKES BUILDING, NEW YORK
April 26, 1894

FIRST LETTER ON JOINT-METALLISM.

JOINT-METALLISM.

FIRST LETTER.

To the Editor of the "New York Times":

SIR: To make business generally prosperous, it is necessary to find a safe and honest plan by which both gold and silver, permanently and at their relative market values, may be made available as the metallic basis of currency.

For a long period of years the money of the world has been, in total value, about half gold and half silver. Recently some nations have demonetized silver, and other countries have attempted to maintain it at a ratio that did not regard the relative values of the two precious metals. This, at a time when the world's indebtedness has increased to a danger-

ous point, has naturally caused distrust and depression of trade.

The known debts of the world amount to more than eight times the total amount of gold in the world. To incur a debt that must be paid on a gold basis is to sell gold short when the short interest is known to be eight times as great as the total amount of the stock in existence. Large owners of money prefer to keep it in banks or trust companies at 2 per cent. or less interest rather than to use it in the production or purchase of goods or property which must decline in value as the purchasing power of money, based on gold alone, increases. Money is hoarded and enterprise halts, trade languishes, laborers are unemployed, incomes are reduced, and times are hard.

The following plan[1] for joint-metallism would enable both the precious metals to be safely used together, without frequent recoinings and without danger of one metal driving out the other, and would afford an honest, adequate, self-regulating, and permanent basis of currency :

[1] See page 121.

Let there be silver coins containing the same weight of silver as there is weight of gold in the present $5 gold-piece.[1] Let those silver coins be called standards. Let it be enacted that for all debts, public or private, of $10 and upward, contracted after six months from the passage of the act, it shall be lawful to pay half in gold coins and half in such number of standards as shall be approximately equal thereto, according to the Government ratio to be fixed as follows:

On the first lawful day of each month,[1] after six months from the passage of the act, the Secretary of the Treasury shall declare what number of standards most nearly represent a $5 gold-piece, according to the average relative market values of gold and silver, from the time of the passage of the act and based on the average market values of all the intervening months. This number is to be the ratio for that current month. A $5 gold-piece, plus said number of standards, will constitute $10 in lawful money during said month.

[1] See pages xi and 198.

Let the mints be open to the coinage of standards, double standards, triple standards, and pieces containing 1000 standards, when the silver is presented accompanied by an equal value of gold, at the current Government ratio, to be coined into $5, $10, and $20 gold pieces.

Let the Treasury receive deposits of gold coin together with silver standards, the proportion of gold and silver in such deposits being according to the Government ratio current at the time, and issue therefor legal-tender joint certificates in denominations of $10, $20, $100, $500, and $1000, these certificates to be redeemable at the Treasury half in gold and half in standards, the number of standards to be according to the Government ratio in force at the time certificates are presented for redemption.

Changes in the Government ratio would become very infrequent, could always be calculated in advance, and would never exceed one standard at any one time. At present value of silver, this would make a difference of 15 cents on $10 lawful money, or 1½ per cent.

This plan would be a suitable basis for negotiating an international agreement for joint-metallism, with an international committee to make any changes in the ratio; but, as the plan is to maintain the full use of silver with gold on the basis of their relative market values, the United States, which is most interested, could safely undertake it alone.

The only possible loss would come from a decline in silver, and this is not probable when, under a system permanently binding the two metals together, silver would have substantially the same access as gold to the mints, even in this country alone. A small uniform minting charge of so much per ounce on both gold and silver might provide a fund to meet any possible loss; and, until an international agreement should be obtained, standards might be coined exclusively of silver mined in the United States after the passage of the act, the market price of all silver to be still used in fixing the ratio.

The Government ratio would soon come to be substantially the economic ratio which is the relative costs of produc-

tion of gold and silver in the poorest mines that could be worked at a profit, when both metals had equal access to the mints. And the cost of production of the two precious metals tegether would naturally constitute the just and safe limit to the expansion of the currency and be the proper measure of its value.

Owing to some exceptionally rich finds of limited extent, and to enormous expenditures for tunnels, plants, etc., not counted in the present cost of production, a small quantity of silver can be produced below even the present price, but this is equally true of gold and does not fix the cost of production of quantities sufficient to meet the requirements of the currency on a joint-metallic basis.

So long as credits throughout the world were expanding, a limited amount of coin would support a large amount of credit. But when there is danger of one money metal driving out the other, and credits are contracted, a larger quantity of coin is required or panic will result. Then pooling of credits and clearing-house certifi-

cates, etc., may save banks and delay or distribute disaster, but will not produce prosperity.

The sobered sense of the people will make them long refuse to develop business until they are assured of an adequate and permanent supply of currency based on the only possible final basis of a sound and sufficient currency—the two precious metals together, limited by the quantities in existence and the cost of production. This can be obtained by the plan I have called joint-metallism.

ANSON PHELPS STOKES.

NEW YORK, Feb. 13, 1894.

EDITORIAL FROM "EVENING POST."

EDITORIAL ARTICLE IN THE *Evening Post* OF MARCH 22, 1894.

The most unfortunate feature of the new silver movement started by Gen. Francis A. Walker in Boston is the fact that it gives the rest of the country a false impression as to public sentiment in the East. The silver lunatics of the South and West are not given to fine distinctions, and do not take the trouble to read with discrimination long papers on financial topics. They jump to the conclusion that Walker and some other men whose names are known to them are in favor of silver coinage like themselves, and by another jump decide that this must be the sentiment of New England. This impression is now being given to the people of the South and West by many of the newspapers which publish and comment

upon the Boston out givings, and it naturally has a marked effect in reviving the financial craze which had begun to abate after the repeal of the silver-purchase act. There is really no ground for the belief that public sentiment in Massachusetts on the silver question is any less sound to-day than it has always been, but it is not strange that the recent developments should deceive people at a distance. This is the most deplorable aspect of the matter.

SECOND LETTER ON JOINT-METALLISM.

JOINT-METALLISM.

SECOND LETTER.

To the Editor of the "New York Times":

The publication of my letter on joint-metallism, which appeared in your issue of February 18th, has brought me numerous criticisms, some entirely favorable, others that think me right, but inopportune, and others that appear not to fully understand the results of the plan I have proposed.

Now that Congress has passed the Seigniorage bill, I again trespass upon your kind hospitality for a few further lines regarding this plan of joint-metallism, by which gold and silver together, at ratios always based on their relative market values, may be made the metallic

basis of currency and afford a sound, honest, self-regulating, and permanent currency on the only possible safe and adequate final basis, the two precious metals *together*, limited by the quantities in existence and by the costs of production.

The new silver coins I have proposed, especially those containing 1000 standards each, would, for the most part, at first, be deposited in the Treasury, together with an equal amount in value of gold coins, the two together forming the appropriate basis for the Government currency issued against them. Whenever more currency should be required, gold and silver together would be taken to the mint and the coined proceeds deposited in the Treasury. Whenever less currency should be required, gold and silver would be together withdrawn from the Treasury and used in the arts, and less would be mined.

As to the present silver dollars and other silver tokens, when the ratio becomes settled and remains unchanged for a considerable period, if the silver dollars and

the smaller silver coins be found then to differ very much from the ratio, they should be recoined, so as to be made of nearly full intrinsic value.

Prior to 1873 (under "free coinage") for each 500 ounces of pure silver the mint delivered 646 silver dollars, less a charge of ½ cent on each piece..$3.23
and for copper alloy about...... 1.11

$4.34, or about two thirds of 1 per cent. The coinage of much larger pieces would cost the mint a much smaller fraction of 1 per cent.

That the question of joint-metallism is an intricate one is no reason why it should not be studied, and discussed in the newspapers. That the ratio can only be approximately exact might be urged with equal force against navigation and other sciences.

Until the general public, by special study, is better able to understand questions regarding the basis of currency, it may be injurious to have bimetallism

made a party issue. The debate on bimetallism is becoming so envenomed that, like the slavery question, it may make dangerous sectional trouble. Many at the East think the West is dishonest on this subject. Many at the West think the East is dishonest on this subject.

The duty of patriotism is to try to find a just and honest way to permanently settle a question which cannot be finally settled by narrow and fluctuating majorities nor by vetoes.

It will go far to promote clear thinking regarding this question if it is generally understood—

First, that money is a certain potentiality or stored-up and readily-available energy representing the cost of the production of the precious metals.

Secondly, that the real function of the mint regarding the precious metals is to stamp pieces of metal so as to indicate the weight of the gold or silver they contain.

Thirdly, that Government paper money should be only certificates of the deposit of such pieces of metal.

Fourthly, that for centuries the metallic money of the world has been in total value about half gold and half silver, a legal ratio having commonly existed between the precious metals, being for a long period 15½ to 1 or 16 to 1, the legal sanction of the ratio being powerful enough to overcome *slight* differences in the relative costs of producing the two metals or their market values.

Fifthly, that silver, having now become generally demonetized, and its chief use in Europe and in the United States being thus abolished, and its market value diminished below the reduction in value caused by the lessening of the cost of production, certain results have necessarily followed, very injurious to our country and to the world, among these results being a general decline in values and an insufficient metallic basis of currency, making manufacture and trade both uncertain and dangerous.

The question before us is how to remonetize silver.

First—Shall the United States alone

attempt to fix and maintain a permanent ratio under present conditions of a demonetized silver market? This is impossible.

Second — Shall we wait until other nations can be induced to join in fixing a ratio? This is dangerous and unnecessary, and the ratio, if so fixed, would soon have to be changed.

Third—Shall the United States decide to use gold and silver together at ratios always based on their relative market values? This is safe and honest, and it can be accomplished by the plan I have called joint-metallism.

Instead of waiting to make a law or a treaty every time a change in ratio is required to conform approximately to the market values, my contention is that we ought to establish a law now and a treaty, if possible, later, that will provide for necessary changes in ratio, although it is probable that after both metals shall have had about equal access to the mint, even in our country alone, for a period of a year or more, on the joint basis I have proposed, changes in ratio will thereafter

become very infrequent, and perhaps many years may pass without such a change.

A few years ago it became evident to some students of economics and to the Government of Germany that the falling off in gold production and the cheapening of silver production by improved metallurgy, etc., and the increase of the world's business and credits, would make inevitable a change in the ratio, which from the beginning of the century had varied but very little.[1] Germany took advantage of her knowledge, her financial position, and her governmental methods, which enabled her to act promptly, and sold her silver for gold, and in 1871 and 1873 demonetized silver, and other nations followed her lead. Now that the market value of silver has fallen far below the cost of its production in quantities sufficient for its general use as a money metal, Germany may probably be glad to follow us in joint-metallism on the plan I have proposed, and to congratulate herself on her astute operations in silver.

[1] See page 132.

It may not be necessary to have more money than we now have, but it is necessary to have more security as to the future value of our currency. Business cannot prosper and labor cannot be fully employed if there is danger that a few months hence a dollar, which is the term we use in contracts, may be worth much less or that it may be worth much more, as measured by the market values or cost of production of the precious metals together, which, in view of our Constitution and of all history, is our only fair standard. Daniel Webster said : "I am certainly of opinion that gold and silver, at rates fixed by Congress, constitute the legal standard of values in this country, and that neither Congress nor any State has authority to establish any other standard or to displace this standard."

It is necessary to the security of the creditor that no Government money should be issued, except based on the market value of the precious metals as contemplated in the Constitution, and it is necessary for the security of the debtor that he

shall not be subject to the risk of money being made artificially scarce or dear, by laws which may restrict the metallic basis of currency to a single precious metal, the hoarding of which may be promoted by such laws, gold being a metal the production of which cannot be greatly and promptly increased by labor.

The Bible says : " Surely there is a vein for the silver and a place for gold." From the earliest historic times there have been known veins where the supply of silver could be at any time largely and promptly increased. It has been always a question of cost of mining, milling, and smelting. But all great increases in the production of gold have come from new finds, which were generally soon worked out and are less to be expected now that the world has been more explored.

The great difficulty in solving the question of the safe, honest, and proper metallic basis of our currency comes from the want of general, adequate, and impartial study. The newspapers are best able to promote this study, and this alone can

save us from fiat money and from money panics.

It is unfortunately true that in this country of peace and freedom, of abundant land, and unrivalled resources, among a people of general education and unexampled energy, there is to-day much suffering on the part of many able and willing to labor for their daily bread. This suffering is directly traceable to unwise legislation caused by the want of adequate study of economic science.

ANSON PHELPS STOKES.

NEW YORK, March 22, 1894.

EDITORIALS FROM "EVENING POST."

Editorial Articles in the *Evening Post*, of March 30, 1894.

Mr. Anson Phelps Stokes has a currency plan called "joint-metallism," by which "gold and silver together at ratios always based on their relative market values may be made the metallic basis of currency."

The reason why Mr. Stokes proposes this plan is, he says, that the general demonetization of silver, and the great reduction in its purchasing power, "have caused a general decline in values, and an insufficient metallic basis of currency, making manufacture and trade both uncertain and dangerous."

Now, this central or basal proposition of Mr. Stokes's is totally denied by the monometallists,[1] and that is why they will

[1] See Appendix pages 90, 91, 94.

never consider his plan. They say, with one of the British delegates to the Monetary Conference, that the whole silver movement is simply a preposterous attempt to keep prices up when science, art, invention, discovery are knocking them down; that the fall in silver has had no more to do with the decline in prices than the fall in wheat, and that nobody has complained or is complaining of any actual scarcity in the supply of gold. It has not shown itself anywhere.

Many dozens of gentlemen in various parts of the world keep telling us that it is going to show itself by and by, and that they are lying awake at night thinking anxiously about it. But there is no sign of it. The supply of gold is increasing rapidly in answer to the increased demand for it,[1] and we believe it may be said with safety, that nobody in any country has ever yet maintained that he was unable to get gold when he had something to exchange for it or good security to borrow it on. In fact, nothing is ever

[1] See Appendix, p. 104.

heard of the scarcity of gold in business circles. All we know about it we get from bimetallic pamphlets and speeches.

The great demand for some other and cheaper kind of currency comes from gentlemen with debts to pay, but if we begin tinkering the currency in order to accommodate these gentlemen, the tinkering will last for ever. The "debtor class" is the oldest class in history, and the hardest to satisfy, and the least interesting. The class which most demands the care of the legislature is the creditor class—that is, the class which has wages to receive, and savings in the bank, and Government bonds in its boxes.

Apropos of this it may be said to the Boston brethren who are sounding the trumpet of alarm over silver, that it is absurd of them to stay in the bimetallic camp. Their central proposition, that Governments by laying their heads together can keep two commodities at equal value, in spite of difference in quantity, in cost of production, and in market

price, applies, though they do not seem to see it, to other commodities than gold and silver. It would apply just as well to copper and gold or copper and leather as silver and gold, and is ample support for the greenback theory.

There is no reason in the world, on this theory, why the Government should not discard metallic money altogether, and agree that certain stamped paper should in their dominions have a certain value in exchange. In old times, when a Government adulterated its coinage—that is, ordered it to pass at a fictitious value—it acknowledged it was cheating, and locked up anybody who said anything about it. The curious feature of the bimetallic and silver craze is that its victims want the civilized Governments to do this cheating in unison, by common consent, and in the light of day.

The prospect opened to the modern world by this confession of ordinarily sensible and educated men that the Government has this power over currency, it is no exaggeration to call appalling. It

is ammunition of the most deadly kind for the socialist, communist, populist, and anarchist, and has the promise and potency of such monetary confusion as has never been seen in any age.

THIRD LETTER ON JOINT-METALLISM.

JOINT-METALLISM.

THIRD LETTER.

To the Editor of the "Evening Post":

SIR: A leading article in last Friday's *Evening Post* beginning "Mr. Anson Phelps Stokes has a currency plan called 'joint-metallism,'" and your following article commencing "Apropos of this," might, I fear, cause some who had not seen my letters on joint-metallism to suppose, mistakenly, that you intended to associate what I have written with the writings of those who desire a dishonest currency, or who you say furnish "ammunition of the most deadly kind for the socialist, communist, populist, and anarchist."

You do not quote the particulars of my plan for "joint-metallism," nor the pro-

vision in it that it shall not affect any debts except those contracted six months after it becomes law. No one can point out any line that I have written that in any way favors dishonesty or anarchy.

What I am contending for is "an honest, adequate, self-regulating and permanent basis of currency," to prevent fiat money, and to find, as I have said, "a just and honest way to permanently settle a question which cannot be finally settled by narrow and fluctuating majorities nor by vetoes."

You say that monometallists totally deny that the demonetization of silver and the great reduction in its purchasing power, etc., have caused a general decline in values, etc., and you refer to British authority.

The Parliamentary Commission on gold and silver which considered substantially this question were equally divided in their report, six members holding to one side and six to the other. Their final report was made in 1888. Since then a distinguished member, among those who then

held that the general demonetization of silver, and the great reduction of its purchasing power, or, in other words, the appreciation of gold, had not caused the general decline in values, has since publicly declared, in 1893, that further study has convinced him that he was in error on this point when he signed the report five years before.[1]

I do not object to that reduction in values which comes from science, art, invention, and discovery, but I do object to the unjust enhancement of the value of gold caused by making it the sole money metal and the sole final basis of currency.

The only final basis of all sound currency is precious metal. For centuries the money of the world has been in total value about half gold and half silver. If this final basis be now limited to gold alone, then the final basis is diminished by about one half. Money may then be plenty in banks because enterprise fears to use it, and trade languishes and laborers are unemployed.

[1] See Appendix, page 104.

Even where only one of the precious metals has been in actual general use as money, the fact that both were legally available has been the important fact.

In your issue of March 22d you deprecate the present revival of the silver question in the East, as giving encouragement to "silver lunatics at the South and West."[1] But so long as our Government is based on popular suffrage, free and full discussion of this question is as necessary as it is inevitable.

If there had been more thorough, fair, and impartial discussion of the silver problem, the absurd Sherman act would never have been enacted, and instead of it I think we might have had a law for the use of "gold and silver together at ratios always based on their relative market values."

I do not want dishonest currency, nor have I any favorable regard for anarchy; but, in company with many more competent students of economics, abroad and here, I hold that an honest and practica-

[1] See page 13.

ble way can be found to permanently restore silver to its historic[1] and just position as a money metal, and that this will be of inestimable benefit to the world, and especially to our country.

Therefore, with all becoming trepidation, standing, as I feel I am, face to face with that greatest of American monometallists, the distinguished author of the World's Fair address on "The Gold Standard," I venture the opinion that the full and temperate discussion of the silver question in the press is most timely and important, and that many who are not monometallists are neither dishonest persons nor lunatics.

ANSON PHELPS STOKES.

NEW YORK, April 4, 1894.

[1] See Appendix, page 80.

EDITORIAL FROM THE "EVENING POST."

EDITORIAL ARTICLE IN THE *Evening Post*, OF APRIL 5TH, 1894.

THE GODDESS ARGENTUM.

We print elsewhere a letter from Mr. Anson Phelps Stokes on his system of "joint-metallism," in reply to some remarks of ours the other day.

Far be it from us to accuse Mr. Stokes of sympathy with dishonesty or anarchism, or of any desire or intention to aid or abet them, Of course it would be silly to do so. But a strict regard for truth compels us to express, as often as the opportunity offers, our solemn conviction that all attempts, whether made in Boston or New York, to persuade the world that the use of silver as full money of account, whether jointly with gold or not, is in any sense a duty of the Govern-

ment, or is called for as a protection for the poor man against "gold-bugs" or "Wall Street sharks," promote populism, communism, anarchism, greenbackism, and simple silverism, and do threaten this country with unnumbered woes.

Nearly all the trouble has arisen out of the personification of silver as a moral being which began in 1877-1878, and of which we find a trace in Mr. Stokes's letter where he speaks of the "historical and just position" of silver.[1] This, if it means anything, means that there is some position in the currency or financial arrangements of the nation, which is due to silver as a matter of right and by prescription, that it can, as an individual or a corporation can, *claim* a place in our medium of exchange, of which we cannot deprive it without a breach of the moral law.

To our minds there has been nothing more extraordinary than this since Moses, on coming down from the mountain, found the Israelities, in spite of the most patent proofs of divine sovereignty, worshipping

[1] See Appendix, page 80.

a golden calf of their own making. It illustrates admirably what to many people now seems incomprehensible, the tendency of the whole ancient world to mythological explanations of the universe. The notion that silver has rights and virtues, that it is courageous and faithful to its friends, and loves the poor, and has made itself an historical place, and is entitled to justice—all of which propositions have been maintained during the last fifteen years by American orators and writers—shows how near we are, in spite of Christianity and science, to the state of mind in which men deified the moon and sun, the mountains, the streams, and even wild beasts and oxen.

To us silver has the same historical position, and has the same rights under the moral law and the United States Constitution,[1] as wheat or leather, wampum or cowries, or coal. There was a time when wheat was twice as dear as it is now, but did it acquire an historic right to be kept at that price, and do we insult it by

[1] See Appendix, page 80.

selling it at 64 to 66 cents a bushel? It has played a more prominent part in the world's history by far than either silver or gold, and ought to have a far higher place in our affections than either. And yet it is bought and sold on margins by Chicago and other speculators, with an indifference to its peace and comfort which is well calculated to excite the indignation of an honest worshipper.

Most other commodities which have played a prominent part in the growth of our civilization have the same story to tell. The march of science has cheapened them, by lessening their value to mankind, but if they are to be worshipped as silver is—that is, treated as moral beings instead of simply brute instruments of human comfort and convenience, we must go back to barbarism. All who know India acknowledge that the sanctity of the cow is in that region a serious hindrance to progress. It cuts the Hindu population off from both beef and a good quality of leather. It sometimes leads, as the other day in Bombay, to riots and murders. It

is, of course, difficult for those who look on the cow as simply an animal which furnishes milk and hides, to avoid occasional displays of irreverence or levity in her presence, and this wounds the Hindu, as our silver-men are wounded by want of respect for silver, in their tenderest part. But what is the remedy? None that we know of except the growth of knowledge and more scientific conceptions of the universe.

Silver is a metal which mankind has found useful as currency in times past, when its value, like the value of nearly all commodities, was pretty steady.[1] Various circumstances, concerning which there is more or less dispute, have deprived it of a good deal of its usefulness as currency, and there is a general disposition among the nations which can afford gold, to discard it.

The one way to meet this tendency is to show that the value of silver is likely to be again steady. To claim for it divine honors or moral rights is simple paganism

[1] See Appendix, pages 94, 110.

and immensely ridiculous. Hides were once wonderfully useful as clothing. Indeed, they were, in northern climates at least, probably the first clothing man put on after his own hide became too tender for exposure. Did this give hides an historic position? Did it give them a claim to justice? Did it make the use of broadcloth a wrong to them over which the human conscience should reproach itself?

FOURTH LETTER ON JOINT-METALLISM.

JOINT-METALLISM.

FOURTH LETTER.

To the Editor of the "Evening Post":

SIR: I have read with much interest your courteous and interesting article in yesterday's *Evening Post* on "The Goddess Argentum."

To worship a goddess with so unfeminine a name would be indeed shocking. I am opposed to idolatry, monometallism, and inflation. You say that the monometallists will never consider my plan because they totally deny that the demonetization of silver and the great reduction in its purchasing power have caused a general decline in values, etc.

The following clause in my plan makes it entirely unpalatable to all who want cheap currency to pay their debts with:

"Let it be enacted that for all debts, public or private, of $10 and upward, contracted *after six months from the passage of the act,*" etc.

But between the monometallists and the inflationists there is a large class that will finally decide this question—the thrifty common people, who are pretty sure, in time, to get at the right of any ethical question and any ordinary business question. These plain people, the mass of the voters in our country, have no sympathy with dishonest debtors, nor have they any desire to allow creditors any unfair advantage.

They do not quickly grasp financial problems that require special study, but they would sooner understand these problems if an independent press would furnish facts and arguments in a non-partisan and non-sectional spirit, allowing both sides to be fairly heard.

Your fairness in printing views of correspondents that honestly differ from your own, is worthy of all commendation.

It is of these common people that Abra

ham Lincoln said : "Those whom the Lord prefers, because He has made so many of them"; and to quote again from Lincoln : "You can fool all of the people some of the time and some of the people all of the time, but you can't fool all of the people all of the time."

They will come to see that it is not for their advantage to have a debased currency, and at the same time they will see that if the final basis of currency be restricted to one kind of article alone, as, for example, city lots or eight-carat diamonds, or ocean steamers, or gold, then capitalists are given an unfair opportunity to monopolize such final basis, and that values of farms and products, wares and merchandise will decline, and business and employment become uncertain.

You say the supply of gold is increasing. For what considerable period of late years has there been any important increase? Has it increased in proportion to the increase in national debts or the increase in the world's trade and population?[1]

[1] See Appendix, page 90.

A report issued by the Treasury about January 1, 1894, gives the per-capita stocks of money as follows:

France	$36.81
United States	26.02
Great Britain	20.40
Germany	18.56
China	1.80

Will not the 400,000,000 of China require more than this now that they are getting railways? You and other eminent American monometallists, as Messrs. Sperry, Bourne, Wells, Laughlin, Atkinson, etc., etc., quote often the statements regarding the production of gold, as compiled by Dr. Soetbeer for the years 1493 to 1885, and as estimated for the years 1886 to 1892 by the Bureau of the Mint. These and other instructive tables are conveniently found at the back of the most orthodox monometallist speech of Hon. Lewis Sperry in the House of Representatives, August 21, 1893.[1]

In 1688 the debt of Great Britain was £664,000. It is now £685,000,000. That is, it is more than one thousand times as large as it was in 1688.

[1] See Appendix, page 105, etc.

PRODUCTION OF GOLD IN THE WORLD.[1]

Period.	Annual average of period, in fine ounces.	Period.	Annual average of period, in fine ounces.
1851–1855	6,410,324	1886	5,127,750
1856–1860	6.486,262	1887	5,093,984
1861–1865	5,949,582	1888	5,316,412
1866–1870	6,270,086	1889	5,746,950
1871–1875	5,501,014	1890	5,473,631
1876–1880	5,543,110	1891	5,830,107
1881–1885	4,794,755	1892	6,328,272

In 1688 the production of gold was about 346,000 ounces. It was, in 1892, 6,328,272 ounces. That is, it was in 1892 eighteen times as large as it was in 1688.

I think the sober sense of the people will decide that they don't want inflation and that they don't want monometallism, but that they do want to return to a larger use of silver, if it can be arranged for conveniently and honestly, and that this can be accomplished by making the basis of our currency both gold and silver in equal parts, based on market values, and to be legal tender for future debts.

ANSON PHELPS STOKES.

NEW YORK, April 6, 1894.

[1] See Appendix, page 106.

[To make the above table of the gold increase thoroughly comprehensible and pertinent, the diminishing part played by gold in the transactions of life should also be set forth.[1] Less than 5 per cent. of the work of exchange in London and here is now done by gold. Checks were unknown in 1688. If the Chinese or any other people want more money they will get it in the usual way. Bimetallists need not lie awake about it.—ED. *Evening Post.*]

[1] See page 68.

EDITORIAL FROM THE "EVENING POST."

EDITORIAL ARTICLE IN THE *Evening Post* OF APRIL 17th, 1894.

It was most unfortunate that so many people here at the North believed that the victory of sound currency was completely won when the Sherman law was repealed. The truth was that it left untouched in a large part of the country the great delusions out of which the Sherman law sprang and which it was intended to satisfy. Its repeal was simply a surrender to stern necessity. There was no money in the Treasury to continue the purchases for which it provided. Foremost among these delusions was the belief that the Government can raise or lower the standard of value; that it is its duty to supply money to the people, and that the bankers and others who refuse to lend it without security are selfish and designing persons, who ought to be taxed into good behavior.

The first duty of intelligent men, when the struggle of last fall was over, was, it seems to us, to engage heart and soul in the great work of public instruction as to the nature and functions of money, and to abstain rigidly, for a while at least, from any words or acts which would be likely to aggravate the prevailing popular errors on this subject—errors more threatening probably to the immediate economical future of the country than any with which we have ever had to contend since the foundation of the government. The appearance of the currency in the political arena was the greatest misfortune which has befallen the nation except the civil war.

FIFTH LETTER ON JOINT-METALLISM.

JOINT-METALLISM.

FIFTH LETTER.

To the Public:

Referring to my previous letters on Joint-Metallism and to the newspaper criticisms thereon and the suggestions that such discussion of the silver question is injurious at this time, I desire to say, that the danger of the situation does not come from discussion but from the facts and from the want of more thorough, impartial and general discussion.

A Scotch Highland minister, preaching from the text "Can the Ethiopian change his skin, or a leopard his spots?" explained that an Ethiopian was a black man and that a leopard was a spotted man suffering from leprosy.

After the service an English clergyman

tried to kindly explain to the Highlander that he had confused the words leopard and leper.

The reply was: "Avoid criticism. It will lead you into all kinds of infidelity."

Some dangers of the present situation.[1]

The national debts of the world are now so enormous and increasing so rapidly that if they continue to be extended payable in gold alone, the base will be found insufficient to support the superstructure.

Another danger is the enormous amount of railway bonds coming due about the beginning of the next century, while one fifth of the total mileage of railways in this country is already being run by receivers under directions of courts which are looking to the interests of the communities and the laborers and refuse to allow wages and some other expenses to be reduced on bankrupt roads.

Another danger, and one that shows the need of promptly settling the currency

[1] See page 141.

on a just and permanent basis, is found in the last legal-tender opinion of the United States Supreme Court, 1884.

"Under the power to coin money and regulate its value, Congress may issue coins of the same denomination as those already current by law, but of less intrinsic value than those (as in 1834) by reason of containing a less weight of the precious metals, and thus enable debtors to discharge their debts by the payment of coins of the less real value."

It is admitted by monometallists that if the Secretary of the Treasury had made a different use of his discretion as to paying out gold and silver, or if the President had made a different use of his veto power, we would now be on a silver basis or rapidly approaching it; and the newspapers daily refer to the great difficulty which the Secretary of the Treasury now experiences in his efforts to maintain even the very small gold reserve of $100,000,000.

Single capitalists or either one of the largest insurance companies in the city of

New York have more assets than all the gold in the United States Treasury.

It would be easy for speculators to draw all the gold out of the Treasury. A combination to lock up gold might cause serious trouble.

As to the claim of monometallists in every country that gold can always be got from abroad, the statistics show that there is not nearly enough gold on any sound banking basis for any time of general liquidation in several great countries at once.

In some parts of Ireland a small piece of pork used to be suspended by a string from the roof of the hut and the poor peasants sitting around in a circle on the earth floor would eat their potatoes and point at the pork, so that a whole family were supposed to derive satisfaction from a piece of pork sufficient for one individual.

The fact that the business of the world is done now so largely by checks and credits is an element of danger making it more necessary that there should be no

uncertainty as to the adequacy of the final basis of the currency.

The above are only some of the many dangers of the present situation showing the necessity for a thorough study and complete understanding of the question of the final basis of currency, and for prompt and efficient efforts to place our currency on a sound, adequate, permanent, and self-regulating basis.

It is neither necessary nor wise for us to wait for England to act. Her great banks, bankers, promoters, and holders of mortgages have a special interest in desiring a single gold standard as frankly owned by Gladstone. But the mercantile, manufacturing, and agricultural classes and masses there are beginning to understand the position, and are daily increasing their active work against monometallism.

There is one circumstance which would make my plan for Joint-Metallism more easily understood in England.

The commutation of tithes in England is based upon the average market values

of wheat, oats, and barley jointly. This may be called *Joint-Cerealism.*

The *Evening Post* is right in urging "intelligent men" "to engage heart and soul in the great work of public instruction as to the nature and functions of money."

One of the most important of such teachings is that all sound currency must have a sufficient basis of precious metals so as to be always convertible into coin.

The people of the United States prefer to use sound convertible paper money instead of coin.

Probably not 5 per cent., perhaps not 1 per cent., of the present population, outside of the great cities, have ever seen a gold-piece.

The total amount of silver dollars November 1, 1893, was:

In circulation............	58,725,818
In the Treasury..........	360,606,732
Total coinage......	419,332,550

Pieces of 1000 "Standards" would be more suitable than silver dollars to be

deposited in the Treasury for silver certificates, and, when deposited together with gold, would comply with the requirements of the Constitution of the United States.[1]

In discussions regarding monometallism and bimetallism, the terms Standard and Medium are sometimes confused.

A Standard may be purely ideal or intangible. But to be of practical use it must be expressed by, in, or through a Medium.

A certain portion of the arc of a great circle is an ideal or an intangible standard of length. When this is expressed by or in a metal measure, as a yard or a *meter*, the metal is the medium, and is longer when warm and shorter when cold. If the metal be of zinc, it will be too frail; if copper, too soft. Brass, which is a mixture of these two metals, is more suitable.

Labor is an ideal standard of value. When it is stored up or expressed in gold, gold is the medium. As gold cannot be increased in proportion to com-

[1] See pages 24 and 80.

modities generally, it is not a just medium by which to express the standard of value.

Silver has increased more than most other commodities, and it is, therefore, not a just medium for this purpose. The excessive increase has been caused largely by the legal ratio between silver and gold having been *permanently* fixed, and below the relative costs of production.

But gold and silver together, half of each, *at values always based on market prices*, make the best medium for expressing the standard of value, the most suitable medium for measuring and storing up energy.

The history of civilization shows that they have been used about equally as the money of the world.

Burke perhaps furnishes an illustration of a *compound standard* when he says:

"A disposition to preserve, and an ability to improve, taken together, would be my *standard* of a Statesman."

Believing that facts and plain statements are more needed than rhetoric, I have thrown together in the Appendix a

number of facts and statistics with the declarations of those whom American monometallists claim as their best friends, and the admissions of such leading monometallists as

Dr. Robert Giffen, author of *Essays in Finance, The Case against Bimetallism, The American Silver Bubble,* etc.;

Hon. David A. Wells, LL.D., D.C.L., etc., etc., the most distinguished of all our political economists and a champion of monometallism;

The *London Statist,* that stalwart monometallist;

And I claim that these prove the necessity of using both gold and silver together as the basis of our currency.

If the people have a right to demand that all money shall be a just and true measure of value, or the representation of a just and true measure of value, according to Secretary Carlisle,[1]

And if labor itself is the real standard of value, as stated by Doctor David A. Wells,[2]

[1] See Appendix, page 84. [2] See Appendix, page 85.

And if labor is continually increasing its power of producing all products except gold, as shown by Doctor Robert Giffen,[1]

Then it is obviously unfair and dangerous to make gold alone the metallic basis of our currency.

If President Cleveland was right when he said,[2] "I hope a way will present itself in the near future for the adjustment of our monetary affairs in such a comprehensive and conservative manner as will afford to silver its proper place in our currency," then I may reasonably ask all reasonable monometallists and all reasonable bimetallists fairly to consider the plan I have proposed, for I claim that it is precisely what the President hoped for.

I am not now debating any question regarding debts already contracted. My plan refers only to providing a currency on a just and safe basis for contracts to be made after the passage of the act.

Safety and equity lie in wedding the two metals together as in that clever ar-

[1] See Appendix, page 88.

[2] See Appendix, page 79.

rangement of the brass pendulum supporting glass tubes containing quicksilver. Increase of heat lengthens the brass arm, and at the same time raises the quicksilver so that the centre of weight in the pendulum is maintained at a constant distance from the point of suspension.

Both our great political parties at their conventions have declared, in the most distinct manner, in favor of preserving the parity of gold and silver, and using both metals together in our currency.

The President and the Secretary of the Treasury and both Houses of Congress have all most distinctly committed themselves to this policy.[1]

The only difficulty is to find some plan to accomplish this in an honest, safe, and permanent way. Such a plan I have endeavored to set forth in my first Letter on Joint-Metallism.[2]

ANSON PHELPS STOKES.

NEW YORK, April 26, 1894.

[1] See Appendix, page 84.

[2] See page 5. See also page 121.

APPENDIX.

APPENDIX.

President Cleveland's Message, March 29, 1894.

. . . .

"If both gold and silver are to serve us as money, and if they together are to supply our people a safe and stable currency, the necessity of preserving this parity is obvious.

. . . .

"I hope a way will present itself in the near future for the adjustment of our monetary affairs in such a comprehensive and conservative manner as will afford to silver its proper place in our currency."

Constitution of the United States, Article I.

Section VIII. Paragraph 1.—"The Congress shall have power . . . Paragraph 5. To coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures."

Section X. Paragraph 1.—"No State shall . . . make anything but gold and silver coin a tender in payment of debts."

The above shows the "historic and just position" of silver as a money metal under our Constitution. *See page 24.*

Democratic Platform.

"We hold to the use of both gold and silver as the standard money of the country, and to the coinage of both gold and silver without discriminating against either metal, or charge for mintage, but the dollar unit of coinage of both metals must be of equal intrinsic and exchangeable value, or be *adjusted* through international agreement, *or by such safeguards of legislation as shall insure the maintenance of the parity of the two metals, and the equal power of every dollar at all times in the markets and in the payment of debts;* and we demand that all paper currency shall be kept at par with and redeemable in such coin."—Democratic National Convention held in Chicago, 21st June, 1892.

Republican Platform.

"The American people, from tradition and interest, favor bimetallism, and the Republican party demands the use of both gold and silver as standard money, with such restrictions *and under such provisions, to be determined by legislation, as will secure the maintenance of the parity of values of the two metals, so that the purchasing and debt-paying power of the dollar, whether of silver, gold, or paper, shall be at all times equal.*"—Republican National Convention, June 7, 1892.

"Every dollar put into the hands of the people should be of the same intrinsic value or purchasing power. With this condition absolutely guaranteed, both gold and silver can be utilized upon equal terms in the adjustment of our currency." —Hon. GROVER CLEVELAND'S letter, September 26, 1892, accepting the Democratic nomination.

"The Republican party is friendly to a restitution of silver to a place of honor

among the money metals of the world. (Applause.) Some of my friends in the West thought I was uttering new doctrines when I declared that I believed the free use of silver upon an international agreement that would assure its continued equality with gold, would do more than anything that I know of, save the establishment of the protection principle, to bring again prosperity into our commerce. (Applause.) The trouble upon this question has been that some of our Western friends would not receive any man as the friend of silver who believed that we could not coin it freely and maintain its parity with gold without coming into an arrangement with the other great commercial nations of the world.

"They should have been more liberal. I believe to-day that we can see in England, the nation that has stood most strongly against the larger use of silver, and in Germany, a nation that has followed England, the clear indications of the growth of a sentiment for an international agreement upon this question.

It is increasing in power; and I believe, if rightly and wisely encouraged and directed from America, it will finally bring other nations, by the compulsion of their own necessities, into accord with us upon this subject." (Applause.)—Ex-President HARRISON—Speech at Indianapolis, April 25, 1894.

"The established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio or such ratio as may be provided by law."—Act of Congress, November 1, 1893.

"Whether it [money] be gold or silver or both, or paper based upon the coins of the two metals, the people have a right to demand that it shall be in fact what it purports to be—a just and true measure of value, or the representative of a just and true measure of value."—Hon. JOHN G. CARLISLE, Secretary of the Treasury. —Speech at Chamber of Commerce Banquet, November 21, 1893.

"There can hardly be a better rule in any country for the legal than the market proportion, if this can be supposed to have been produced by the free and steady course of commercial principles."—ALEXANDER HAMILTON, "Report on the Establishment of a Mint."

"The proportion between the values of gold and silver is a mercantile problem altogether."—THOMAS JEFFERSON, "On the Establishment of a Money Unit and of a Coinage for the United States."

"Labor[1] itself is the real standard of value to which the prices of all the products of labor must adjust themselves."—D. A. WELLS, *Practical Economics*, p. 35.

"Viewing a long period dynamically, it is beyond all question that commodities are comparatively steady and only the money changes."—ROBERT GIFFEN.

"I venture to ask your publication of this short letter, because it is the great depreciation of the currencies of silver-

[1] "Labor is the universal and accurate measure of value."—ADAM SMITH.

using nations which is destroying England's exports to 700,000,000 of those who were formerly her best customers, and it is for this reason, and this only, that the terrible fall in the Eastern rates of exchange since last July has converted London by wholesale to bimetallism, grudgingly and unwillingly, I admit; but the conversion is there, and as the result of nine months only! In memorializing Lord Rosebery the other day to call a Monetary Conference, the London Chamber of Commerce, previously monometallic, has really voiced the changing sentiment of our community."—Yours faithfully, MORETON FREWEN, New York, April 24, 1894.—From a letter to the New York *Tribune*.

It has been claimed by many monometallists that there is a great increase in the production of gold, particularly in South Africa.

The following from the *New York Evening Post*, April 11, 1894, has some bearing on this question:

"The London correspondent of the *Engineering and Mining Journal* furnishes a review of the mining companies wound up in bankruptcy in Great Britain during 1892, the report for that year just having been printed. The largest proportion of failures was of companies formed to promote gold mining in South Africa, one swindling project alone costing English investors the sum of $27,000,000."

"Between 1851 and 1870 the new supply of gold available for currency averaged $92,000,000. Between 1871 and 1881 it had fallen to $24,000,000."—A. SOETBEER.

"About two thirds of the gold annually produced is taken for the arts; and if the consumption of India is included, as being either for simple hoarding or for the arts, and in no case for the purpose of circulating money, then the demand for gold for non-monetary purposes appears almost equal to the entire annual production."—ROBERT GIFFEN.

Since the discovery of America the world's total production of the precious metals has been in weight about five per cent. gold and ninety-five per cent. silver.

The extremes have been:

1581–1600, average	1.7 % gold,	98.3 % silver	
1851–1855 "	18.4 "	81.6 "	
In 1892 it was......	4. "	96. "	

It is instructive to note how very much more these proportions have varied than have the relative market prices of gold and silver.

For one hundred and eighty-six years (1687 to 1873) the commercial ratio of gold to silver was never less than 14.14, and never more than 15.95, except

In 1808, when it was..................	16.08
" 1812, " " "......	16.11
" 1813, " " "...................	16.25

See Soetbeer's tables, and Pixley & Abell's tables.

" It is quite conceivable that if gold were to increase in quantity and its cost of production to diminish, as other commodities

increase in quantity and have their cost of production diminished, there would be no change of any kind in gold prices. Commodities would be more abundant, but the abundance would make itself felt in a rise of money wages, salaries, rents, and profits, and not in lower prices. That it is felt in lower prices now appears to be absolute proof that the relation between gold and commodities has changed, that they have not increased in quantity and had their cost of production diminished *pari passu*. In addition, however, while not denying that there has been a change on the commodities side of the balance, I would go farther and maintain that what has happened to gold in the way of diminished production and increased demands upon it, arising from other causes than the multiplication of commodities, must have had great effect."—ROBERT GIFFEN.

"But the result of carrying on larger and larger transactions on a narrow basis of coin or bullion is to magnify the rela-

tive importance of changes on that article. It may still be true, and I believe it is true, that the bullion in a country under a given set of conditions is the final measure of prices in that country."—ROBERT GIFFEN.

"Population and production are constantly being increased, and the gold used for reserves and small change must be increased in proportion."—ROBERT GIFFEN.

"I should say also that, allowing for almost any progress in the modes of working the precious metals, and for further discoveries like those of Australia and California, the probabilities now are that on the whole this insufficiency of the supply of the precious metals is likely to be permanent."—ROBERT GIFFEN.

"A large and sudden abstraction from the money of a country, if that were conceivable, would be equally potent for mischief. The rich would become enormously richer, and the poor enormously poorer."—ROBERT GIFFEN.

"Prices are the expression of a relation of quality between commodities and gold . . . of course what is said of gold would be true of any other metal used as money."—ROBERT GIFFEN.

"If we are right in holding the view which we unquestionably entertain, that the increase of the gold out-put of the world will soon bring about a rise of prices."—London *Statist*, February 3, 1894.[1]

The Banks of Venice and of Amsterdam issued certificates of deposit and promissory notes long before the Bank of England was established.

"At the commencement of the reign of Hian-Tsoung, of the Thang dynasty, in the year 807 of the Christian era, and on the occasion of a great famine, the Emperor decreed that all merchants and wealthy persons should deposit the whole of their gold and silver in the public

[1] This is a very important and late admission as to the effect upon prices of any reduction in the total supply of money metals whether caused by demonitization or by lessened production.

treasury, and in return there were delivered to them notes called 'fey thsian,' or 'flying money.' Three years afterward this paper money was called in at Pekin, but its circulation continued to be authorized in the provinces. In A. D. 906 the paper currency was revised by another Emperor, merchants being permitted to deposit their bullion in the exchequer, and to receive in exchange notes called 'running money.' In 1021 this currency represented a value of nearly three million ounces of silver."—*Klaproth Asiatic Journal*, for 1822.

Marco Polo found currency money in China.

From Report of the Director of the Mint for 1893, page 164.

COINAGES OF NATIONS.

Countries.	1890.		1891.		1892.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Japan....	$1,194,050	$7,296,645	$1,083,725	$8,523,904	$1,319,525	$12,307,062
China.....	....	....	....	2,854,137	....	3,500,000

From Report of the Director of the Mint for 1893, page 241.

CHINA.

LEGATION OF THE UNITED STATES,
PEKING, July 24, 1893.

. . . .

"No gold was coined or recoined in 1892; $3,500,000 worth of silver was coined in 1892, of this amount, $25,000 was in dollars and 50-cent coins; about 8,000,000, 20-cent pieces and 19,000,000, 10-cent pieces were coined. The remainder was in 5-cent pieces.

. . . .

"No notes are issued by the Government. In some of the provinces, local banks are permitted to issue notes of small denominations.

. . . .

"A new mint has been recently started on the Island of Formosa."

. . . .

ANNUAL COST OF U. S. MINTS AND ASSAY OFFICES.

The support of the mints and assay offices of the United States, cost in 1893:

Salaries	$210,500.08
Wages	636.135.61
Contingent	173,954.61
Storage of Silver Bullion	70,480.45
	$1,091,070.75

Extracts from the Final Report of the Royal Commission on gold and Silver, 1888.

PART I (signed by *all* the members of the Commission).

SEC. 189—"Looking then to the vast changes which occurred prior to 1873 in the relative production of the two metals without any corresponding disturbance in their market value, it appears to us difficult to resist the conclusion that some influence was then at work tending to steady the price of silver, and to keep the ratio which it bore to gold approximately stable."

SEC. 190—"Prior to 1873 the fluctua-

tions in the price of silver were gradual in their character, and ranged within very narrow limits. The maximum variation in 1872 was $\frac{5}{8}$d. and the average not quite $\frac{5}{16}$d., while in 1886 the maximum was $2\frac{9}{16}$d., and the average nearly $1\frac{1}{8}$d. It has not been, and indeed hardly could be, suggested that the difference can be accounted for by changes in the relative production or actual use of the two metals."

SEC. 193—" Nor does it appear to us *a priori* unreasonable to suppose that the existence in The Latin Union of a bimetallic system, with a ratio of $15\frac{1}{2}$ to 1 fixed between the two metals, should have been capable of keeping the market price of silver steady at approximately that ratio.

" The view that it could only affect the market price to the extent to which there was a demand for it for currency purposes in The Latin Union, or to which it was actually taken to the mints of those countries, is, we think, fallacious. . . ."

PART II. Signed by six Members of the Commission: Lord HERSCHELL, G.C.B.; Sir C. W. FREEMANTLE, K.C.B.; Rt. Hon. Sir JOHN LUBBOCK, Bart., M.P.; LORD FARRER; Mr. J. W. BIRCH; Rt. Hon. LEONARD H. COURTNEY, M.P.[1]

SEC. 99.—We may summarize our conclusions upon this part of the case as follows: We think that the fall in the price of commodities may be in part due to an appreciation of gold, but to what extent this has affected prices we think it impossible to determine, with any approach to accuracy.

We think, too, that the fall in the gold price of silver has had a tendency operating in the same direction upon prices; but whether this has been effective to any, and if so to what extent, we think equally incapable of determination.

We believe the fall to be mainly due, at all events, to circumstances independent of changes in the production of, or demand for, the precious metals, or the altered relation of silver to gold.

As regards the fall in the gold price of silver, we think that, though it may be

[1] Mr. Courtney changed his opinion later on the question of the appreciation of gold, etc. See Appendix page 103.

due in part to the appreciation of gold, it is mainly due to the depreciation of silver.

SEC. III. We may point also to an advantage of a different character which might perhaps arise from the adoption of bimetallism.

There seems reason to believe that the production of gold has been diminishing, and it is uncertain whether this diminution has reached its lowest point.

On the other hand, there is some reason to suppose that the use of that metal in the arts is likely in the future to increase. There can be no doubt too that the population and commerce of nations having a gold standard may be expected to increase largely.

Under these circumstances it may be open to argument that the vast superstructure of credit, which rests upon the gold basis, would run the risk of being disturbed if the standard were found to be appreciating. If, on the other hand, credit were founded on a bimetallic instead of a gold standard, the base upon which

the fabric rests might be enlarged, and the danger to which we have alluded might be diminished.

SEC. 119. Apprehensions have been expressed that if the bimetallic system were adopted gold would gradually disappear from circulation. If, however, the arrangement included all the principal commercial nations, we do not think there would be any serious danger of such a result.

Such a danger, if it existed at all must be remote. It is said, indeed, by some that if it were to happen, and all nations were to be driven to a system of silver monometallism, the result might be regarded without dissatisfaction.

We are not prepared to go this length, but, at the same time, we are fully sensible of the benefits which would accrue from the adoption of a common monetary standard by all the commercial nations of the world, and we are quite alive to the advantage of the adoption by these nations of an uniform bimetallic standard as a step in that direction.

Part III. Signed by the other six Members of the Commission: Rt. Hon. Sir LOUIS MALLET, C.B.; Rt. Hon. A. J. BALFOUR, M.P.; Rt. Hon. HENRY CHAPLIN, M.P.; Sir D. BARBOUR, K.C.S.I.; Sir W. H. HOULDESWORTH, Bart., M.P.; Mr. SAMUEL MONTAGU, M.P.

SEC. 11. In Sec. 47 of Part II., our colleagues express the view that "the greater part of the fall has resulted from causes touching the commodities rather than from an appreciation of the standard; and again in Section 99, "we believe the fall to be mainly due, at all events, to circumstances independent of changes in the production of or demand for the precious metals, or the altered relation of silver to gold."

From this view we feel bound to dissent. The importance of the question whether the incapacity of the existing stock of gold to meet the currency requirements of the world arises from the fact that those currency requirements are increasing through the growth of commerce and of population, or through the monetary policy of particular nations, may easily be exaggerated. In our opinion it is almost impossible to distinguish between these two sets of causes. A great increase in

the production of commodities means a great increase in wealth, and would ordinarily be attended with an increased demand for the standard metal. The prices of some commodities would fall because they were produced in increasing quantities; the prices of commodities generally would tend to fall because there was an increased demand for the standard metal, and there are no means of saying how much of the alteration in price in any particular case is due to increased production, and how much to increased demand for the standard.

In any case, however, we differ from the view taken by our colleagues, to which we have above referred, for the following reasons:

In the first place we find no proof that the supply of commodities generally has increased, or that the cost of production has diminished at a greater rate in the years which have elapsed since the rupture of the bimetallic par than was the case in periods of like duration, antecedent to that date. . . .

SEC. 12.—There appears to us to be sufficient evidence (to which we shall refer later on when we deal in detail with the several questions contained in our order of reference) to show that the fall of prices and its resulting evils have affected all classes of the population (with the exception of those in the enjoyment of fixed incomes payable in gold), from the manufacturers and producers down to the wage-earners; but, in our opinion, it is the latter class which have the most direct and immediate interest in the adoption of any measure which will re-establish the comparative stability of the standard of value, such as it was before the recent divergence in the relative value of the precious metals.

SEC. 28.— . . . We are strongly of opinion that both metals must continue to be used as standard money; the result of using them separately and independently since 1873 have been most unsatisfactory, and may be positively disastrous in the future.

It cannot be questioned that until 1873 gold and silver were always effectively linked by a legal ratio in one or more countries.

It is equally indisputable that the relative value of the two metals has been subject to greater divergence since 1874 than during the whole of the two hundred years preceding that date, notwithstanding the occurrence of variations in their relative production more intense and more prolonged than those which have been experienced in recent years.

SEC. 29.—In 1873 and 1874 the connecting link disappeared, and for the first time the system of rating the two metals ceased to form a subject of legislation in any country in the world.

The law of supply and demand was for the first time left to operate independently upon the value of each metal ; and simultaneously the ratio which had been maintained, with scarcely any perceptible variation, for two hundred years, gave place to a marked and rapid divergence in the relative value of gold and silver,

which has culminated in a change from $15\frac{1}{2}$ to 1 to 22 to 1.

From the "Nineteenth Century Review," April, 1893.

I was one of the six members of the Gold and Silver Commission who could not see their way to recommend bimetallism, and reported: "When we look at the character and times of the fall in the prices of commodities . . . we think the sounder view is that the greater part of the fall has resulted from causes touching the commodities, rather than from an appreciation of the standard." In the same paragraph we had said: "We are far from denying that there may have been, and probably has been, some appreciation of gold," though we held it impossible to determine its extent. Let me make a confession. I hesitated a little about this paragraph. I thought there was, perhaps, more in the suggestion of an appreciation of gold than my colleagues believed; but whilst I thus doubted I did

not dissent. I am now satisfied that there has been an appreciation of gold greater than I suspected when I signed the Report, and I should not be able to concur in the same paragraph again. . . .

I have no doubt as to the fact of appreciation; I believe it to have been serious; . . .

With the rupture of the bimetallic tie, the ratio has changed enormously, though there has been nothing like the same alteration in the relative production of the two metals. . . .

Five years ago I joined with my friends in deprecating any attempt to establish an international agreement for the free coinage of both gold and silver as standard money. I have advanced with further experience and reflection to the belief that such an agreement is to be desired, and that it could be accomplished with the minimum of change and with great advantage to the empire and the world on the conditions I have suggested.

LEONARD COURTNEY.

Product of Gold and Silver in the United States from 1792-1844, and Annually since.

[The estimate for 1792-1873 is by R. W. Raymond, Commissioner, and since by the Director of the Mint.]

Years.	Gold.	Silver.	Total.
April 2, 1792-July 31, 1834	$14,000,000	Insignificant.	$14,000,000
July 31, 1834-December 31, 1844	7,500,000	$250,000	7,750,000
1845	1,008,327	50,000	1,058,327
1846	1,139,357	50,000	1,189,357
1847	889,085	50,000	939,085
1848	10,000,000	50,000	10,050,000
1849	40,000,000	50,000	40,050,000
1850	50,000,000	50,000	50,050,000
1851	55,000,000	50,000	55,050,000
1852	60,000,000	50,000	60,050,000
1853	65,000,000	50,000	65,050,000
1854	60,000,000	50,000	60,050,000
1855	55,000,000	50,000	55,050,000
1856	55,000,000	50,000	55,050,000
1857	55,000,000	50,000	55,050,000
1858	50,000,000	500,000	50,500,000
1859	50,000,000	100,000	50,100,000
1860	46,000,000	150,000	46,150,000
1861	43,000,000	2,000,000	45,000,000
1862	39,200,000	4,500,000	43,700,000
1863	40,000,000	8,500,000	48,500,000
1864	46,100,000	11,000,000	57,100,000
1865	53,225,000	11,250,000	64,475,000
1866	53,500,000	10,000,000	63,500,000
1867	51,725,000	13,500,000	65,225,000
1868	48,000,000	12,000,000	60,000,000
1869	49,500,000	12,000,000	61,500,000
1870	50,000,000	16,000,000	66,000,000
1871	43,500,000	23,000,000	66,500,000
1872	36,000,000	28,750,000	64,750,000
1873	36,000,000	35,750,000	71,750,000
1874	33,500,000	57,300,000	70,800,000
1875	33,400,000	31,700,000	65,100,000
1876	39,900,000	38,800,000	78,700,000
1877	46,900,000	39,800,000	86,700,000
1878	51,200,000	45,200,000	96,400,000
1879	38,900,000	40,800,000	79,700,000
1880	36,000,000	39,200,000	75,200,000
1881	34,700,000	43,000,000	77,700,000
1882	32,500,000	46,800,000	79,300,000
1883	30,000,000	46,200,000	76,200,000
1884	30,800,000	48,800,000	79,600,000
1885	31,800,000	51,600,000	83,400,000
1886	35,000,000	51,000,000	86,000,000
1887	33,000,000	53,350,000	86,350,000
1888	33,175,000	59,195,000	92,370,000
1889	32,800,000	64,646,000	97,446,000
1890	32,845,000	70,464,000	103,309,000
1891	33,175,000	75,417,000	108,592,000
1892	33,000,000	73,697,000	106,697,000
Total	1,937,881,769	1,146,869,000	3,084,750,769

Statement of the Production of Gold and Silver in the World since the Discovery of America.

[From 1493 to 1885 is from table of averages for certain periods compiled by Dr. Adolph Soetbeer. For the years 1886-1892 the production is the annual estimate of the Bureau of the Mint.

Period.	Gold.				Silver.				Percentage of production.			
	Annual average of period.		Total for the period.		Annual average of period.		Total for the period.		By weight.		By value.	
	Fine ounces.	Value.	Fine ounces.	Value.	Fine ounces.	Coinage value.	Fine ounces.	Coinage value.	Gold.	Silver.	Gold.	Silver.
1493-1520	186,470	$ 3,855,000	5,221,160	$107,931,000	1,511,050	$ 1,954,000	42,309,400	$ 54,703,000	11.0	89.0	66.4	33.6
1521-1544	230,194	4,759,000	5,524,656	114,205,000	2,899,930	3,749,000	69,598,320	89,986,000	7.4	92.6	55.9	44.1
1545-1560	273,596	5,656,000	4,377,544	90,492,000	10,017,940	12,952,000	160,287,040	207,240,000	2.7	97.3	30.4	69.6
1561-1580	219,906	4,546,000	4,398,120	90,917,000	9,628,925	12,450,000	192,578,500	248,990,000	2.2	97.8	26.7	73.3
1581-1600	237,267	4,905,000	4,745,340	98,095,000	13,467,635	17,413,000	269,352,700	348,254,000	1.7	98.3	22.0	78.0
1601-1620	273,918	5,662,000	5,478,360	113,248,000	13,596,235	17,579,000	271,924,700	351,579,000	2.0	98.0	24.4	75.6
1621-1640	266,845	5,516,000	5,336,900	110,324,000	12,654,240	16,361,000	253,084,800	327,221,000	2.1	97.9	25.2	74.8
1641-1660	281,955	5,828,000	5,639,110	116,571,000	11,776,545	15,226,000	235,530,900	304,525,000	2.3	97.7	27.7	72.3
1661-1680	297,709	6,154,000	5,954,180	123,084,000	10,834,550	14,008,000	216,691,000	280,166,000	2.7	97.3	30.5	69.5
1681-1700	346,095	7,154,000	6,921,895	143,088,000	10,992,085	14,212,000	219,841,700	284,240,000	3.1	96.9	33.5	66.5
1701-1720	412,163	8,520,000	8,243,260	170,403,000	11,432,540	14,781,000	228,650,800	295,629,000	3.5	96.5	36.6	63.4
1721-1740	613,422	12,681,000	12,268,440	253,611,000	13,863,080	17,924,000	277,261,600	358,480,000	4.2	95.8	41.4	58.6
1741-1760	791,211	16,356,000	15,824,230	327,116,000	17,140,612	22,162,000	342,812,235	443,232,000	4.4	95.6	42.5	57.5
1761-1780	655,666	13,761,000	13,313,315	275,211,000	20,985,591	27,133,000	419,711,820	542,658,000	3.1	96.9	33.7	66.3
1781-1800	571,948	11,823,000	11,438 970	236,464,000	28,261,779	36,540,000	565,235,580	730,810,000	2.0	98.0	24.4	75.6
1801-1810	571,563	11,815,000	5,715,627	118,152,000	28,746,922	37,168,000	287,469,225	371,677,000	1.9	98.1	24.1	75.9
1811-1820	367,957	7,606,000	3,679,568	76,063,000	17,385,755	22,479,000	173,857,555	224,786,000	2.1	97.9	25.3	74.7
1821-1830	457,044	9,448,000	4,570,444	94,479,000	14,807,004	19,144,000	148,070,040	191,444,000	3.0	97.0	33.0	67.0
1831-1840	652,291	13,484,000	6,522,913	134,841,000	19,175,867	24,793,000	191,758,675	247,930,000	3.3	96.7	35.2	64.8
1841-1850	1,760,502	36,393,000	17,605,018	363,928,000	25,090,342	32,440,000	250,903,422	324,400,000	6.6	93.4	52.9	47.1
1851-1855	6,410,324	132,573,000	32,051,621	662,566,000	28,488,597	36,824,000	142,442,986	184,169,000	18.4	81.6	78.3	21.7
1856-1860	6,486,262	134,083,000	32,431,312	670,415,000	29,095,428	37,618,000	145,477,142	188,092,000	18.2	81.8	78.1	21.9
1861-1865	5,949,582	122,989,000	29,747,913	614,944,000	35,401,972	45,772,000	177,009,862	228,861,000	14.4	85.6	72.9	27.1
1866-1870	6,270,086	129,614,000	31,350,430	648,071,000	43,051,583	55,663,000	215,257,914	278,313,000	12.7	87.3	70.0	30.0
1871-1875	5,501,014	115,577,000	27,955,068	577,083,000	63,317,014	81,864,000	316,585,069	409,322,000	8.1	91.9	58.6	41.4
1876-1880	5,543,110	114,186,000	27,715,550	572,931,000	78,775,602	101,851,000	393,878,000	509,256,000	6.6	93.4	53.0	47.0
1881-1885	4,794,755	99,116,000	23,973,773	495,582,000	92,003,944	118,055,000	460,019,722	594,773,000	5.0	95.0	45.5	54.5
1886.....	5,127,750	106,000,000	5,127,750	106,000,000	93,276,000	120,600,000	93,276,000	120,600,000	5.2	94.8	46.8	53.2

Statement of the Production of Gold and Silver in the World since the Discovery of America.—Continued.

[From 1493 to 1885 is from table of averages for certain periods compiled by Dr. Adolph Soetbeer. For the years 1886–1892 the production is the annual estimate of the Bureau of the Mint.]

Period.	Gold.				Silver.				Percentage of production.			
	Annual average of period.		Total for the period.		Annual average of period.		Total for the period.		By weight.		By value.	
	Fine ounces.	Value.	Fine ounces.	Value.	Fine ounces.	Coinage value.	Fine ounces.	Coinage value.	Gold.	Silver.	Gold.	Silver.
1887...	5,093,984	$105,302,000	5,093,984	$105,302,000	96,189,000	$124,366,000	96,189,000	$124,366,000	5.0	95.0	45.9	54.1
1888...	5,316,412	109,900,000	5,316,412	109,900,000	109,911,000	142,107,000	109,911,000	142,107,000	4.6	95.4	43.6	56.4
1889...	5,746,950	118,800,000	5,746,950	118,800,000	125,830,000	162,690,000	125,830,000	162,690,000	4.4	95.6	42.2	57.8
1890...	5,473,631	115,450,000	5,473,631	113,150,000	133,213,000	172,235,000	133,213,000	172,235,000	4.0	96 0	39.7	60.3
1891...	5,830,107	120,519,000	5,830,107	120,519,000	144,426,000	186,733,000	144,426,000	186,733,000	3.9	96.1	39.2	60.8
1892...	6,328,272	130,817,000	6,328,272	130,817,000	152,062,000	196,605,000	152,062,000	196,605,000	4.0	96.0	40.0	60.0
Total.	....	....	397,191,823	8,204,303,000	....	....	7,522,507,716	9,726,072,000	5.0	95.0	45.8	54.2

Monetary Systems and Approximate Stocks of Money in the Aggregate and per Capita in the Principal Countries of the World.

Countries.	Monetary system.	Ratio between gold and full legal-tender silver.	Ratio between gold and limited tender silver.	Population.	Stock of gold.
United States	Gold and silver.	1 to 15.98	1 to 14.95	67 000,000	$604,000,000
United Kingdom	Gold	....	1 to 14.28	38,000,000	550,000,000
France	Gold and silver.	1 to $15\frac{1}{2}$	1 to 14.38	39,000,000	800,000,000
Germany	Gold	....	1 to 13.957	49,500,000	600,000,000
Belgium	Gold and silver.	1 to $15\frac{1}{2}$	1 to 14.38	6,100,000	65,000,000
Italy	....do	1 to $15\frac{1}{2}$	1 to 14.38	31,000,000	93,605,000
Switzerland	....do	1 to $15\frac{1}{2}$	1 to 14.38	3,000,000	15,000,000
Greece	... do	1 to $15\frac{1}{2}$	1 to 14.38	2,200,000	2,000,000
Spain	... do	1 to $15\frac{1}{2}$	1 to 14.38	18,000,000	40,000,000
Portugal	Gold	....	1 to 14.08	5,000,000	40,000,000
Austria-Hungary	....do	....	1 to 13.69	40,000,000	40,000,000
Netherlands	Gold and silver.	1 to $15\frac{1}{2}$	1 to 15	4,500,000	25,000,000
Scandinavian Union	Gold	....	1 to 14.88	8,600,000	32,000,000
Russia	Silver	1 to $15\frac{1}{2}$	1 to 15	113,000,000	250,000,000
Turkey	Gold and silver.	....	1 to 15.1	33,000,000	50,000,000
Australia	Gold	....	1 to 14.28	4,000,000	100,000,000
Egypt	....do	....	1 to 15.68	7,000,000	100,000,000
Mexico	Silver	1 to $16\frac{1}{2}$	....	11,600,000	5,000,000
Central America	....do	1 to $15\frac{1}{2}$	....	3,000,000	....
South America	....do	1 to $15\frac{1}{2}$	....	35,000,000	45,000,000
Japan	Gold and silver.	1 to 16.18	....	40,000,000	90,000,000
India	Silver	1 to 15	....	255,000,000	....
China	....do	....	....	400,000,000	....
The Straits	....	....	....	....	....
Canada	Gold	....	1 to 14.95	4,500,000	16,000,000
Cuba, Hayti, etc	....do	1 to $15\frac{1}{2}$	....	2,000,000	20,000,000
Total	....	....	....	....	3,582,605,000

Monetary Systems and Approximate Stocks of Money in the Aggregate and per Capita in the Principal Countries of the World (Continued).

Countries.	Monetary system.	Stock of silver.			Uncovered paper.	Per capita.			
		Full tender.	Limited tender.	Total.		Gold.	Silver.	Paper.	Total.
United States	Gold and silver	$538,000,000	$77,000,000	$615,000,000	$412,000,000	$9.01	$9.18	$6.15	$24.34
United Kingdom	Gold	....	100,000,000	100,000,000	50,000,000	14.47	2.63	1.32	18 42
France	Gold and silver	650,000,000	50,000,000	700,000,000	81,402,000	20.52	17.95	2.09	40.56
Germany	Gold	103,000,000	108,000,000	211,000,000	107,000,000	12.12	4.26	2.16	18.54
Belgium	Gold and silver	48,400,000	6,600,000	55,000,000	54,000,000	10.66	9.02	8.85	25.53
Italy	...do	16,000,000	34,200,000	50,200,000	163,471,000	3.01	1.62	5.27	9.91
Switzerland	...do	11,400,000	3,600,000	15,000,000	14,000,000	5.00	5.00	4.67	14.67
Greece	...do	1,800,000	2,200,000	4,000,000	14,000,000	.91	1.82	6.36	9.09
Spain	...do	120,000,000	38,000,000	158,000,000	100,000,000	2.22	8.78	5.56	16.56
Portugal	Gold	....	10,000,000	10,000,000	45,000,000	8.00	2.00	9.00	19.00
Austria-Hungary	...do	90,000,000	....	90,000,000	260,000,000	1.00	2.25	6.50	9.75
Netherlands	Gold and silver	61,800,000	3,200,000	65,000,000	40,000,000	5.55	14.42	8.89	28.88
Scandinavian Union	Gold	....	10,000,000	10,000,000	27,000,000	3.72	1.16	3.14	8.02
Russia	Silver	22,000,000	38,000,000	60,000,000	500,000,000	2.21	.53	4.42	7.16
Turkey	Gold and silver	....	45,000,000	45,000,000	....	1.52	1.36	....	2.88
Australia	Gold	....	7,000,000	7,000,000	....	25.00	1.75	....	26.75
Egypt	...do	....	15,000,000	15,000,000	....	14.29	2.14	....	16.43
Mexico	Silver	50,000,000	....	50,000,000	2,000,000	.43	4.31	.17	4.91
Central America	...do	500,000	....	500,000	2,000,000	....	.17	.67	.84
South America	...do	25,000,000	....	25,000,000	600,000,000	1.29	.71	17.14	19.14
Japan	Gold and silver	50,000,000	....	50,000,000	56,000,000	2.25	1.25	1.40	4.90
India	Silver	900,000,000	....	900,000,000	28,000,000	....	3.53	.11	3.64
China	...do	700,000,000	....	700,000,000	....	....	1.75	....	1.75
The Straits	....	100,000,000	....	100,000,000	....	....	....	....	......
Canada	Gold	....	5,000,000	5,000,000	40,000,000	3.56	1.11	8.89	13.56
Cuba, Hayti, etc.	..do	1,200,000	800,000	2,000,000	40,000,000	10.00	1.00	20.00	31.00
Total	....	3,489,100,000	553,609,000	4,042,700,000	2,635,873,000	....	....	....	......

TREASURY DEPARTMENT, BUREAU OF THE MINT, *August 16, 1893*.

Commercial Ratio of Silver to Gold for each Year since 1687.

[NOTE.—From 1687 to 1832 the ratios are taken from the tables of Dr. A. Soetbeer ; from 1833 to 1878 from Pixley and Abell's tables ; and from 1878 to 1892 from daily cablegrams from London to the Bureau of the Mint.]

Year.	Ratio.	Year.	Ratio.	Year.	Ratio.	Year.	Ratio.	Year.	Ratio.
1687	14.94	1729	14.92	1771	14.66	1813	16.25	1855	15.38
1688	14.94	1730	14.81	1772	14 52	1814	15.04	1856	15.38
1689	15.02	1731	14.94	1773	14.62	1815	15.26	1857	15.27
1690	15.02	1732	15.09	1774	14.62	1816	15.28	1858	15.38
1691	14.98	1733	15.18	1775	14.72	1817	15.11	1859	15.19
1692	14.92	1734	15.39	1776	14.55	1818	15.35	1860	15.29
1693	14.83	1735	15.41	1777	14.54	1819	15.33	1861	15.50
1694	14.87	1736	15.18	1778	14.68	1820	15.62	1862	15.35
1695	15.02	1737	15.02	1779	14.80	1821	15.95	1863	15.37
1696	15.00	1738	14.91	1780	14.72	1822	15 80	1864	15.37
1697	15.20	1739	14.91	1781	14.78	1823	15.84	1865	15.44
1698	15.07	1740	14.94	1782	14.42	1824	15.82	1866	15.43
1699	14.94	1741	14.92	1783	14.48	1825	15.70	1867	15.57
1700	14.81	1742	14.85	1784	14.70	1826	15.76	1868	15.59
1701	15.07	1743	14.85	1785	14.92	1827	15.74	1869	15.60
1702	15.52	1744	14.87	1786	14.96	1828	15.78	1870	15.57
1703	15.17	1745	14.98	1787	14.92	1829	15.78	1871	15.57
1704	15.22	1746	15.13	1788	14.65	1830	15.82	1872	15.63
1705	15.11	1747	15.26	1789	14.75	1831	15.72	1873	15.92
1706	15.27	1748	15.11	1790	15.04	1832	15.73	1874	16.17
1707	15.44	1749	14.80	1791	15.05	1833	15.93	1875	16.59
1708	15.41	1750	14.55	1792	15.17	1834	15.73	1876	17.88
1709	15.31	1751	14.39	1793	15.00	1835	15.80	1877	17.22
1710	15.22	1752	14.54	1794	15.37	1836	15.72	1878	17.94
1711	15.29	1753	14.54	1795	15.55	1837	15.83	1879	18.40
1712	15.31	1754	14.48	1796	15.65	1838	15.85	1880	18.05
1713	15.24	1755	14.68	1797	15.41	1839	15.62	1881	18.16
1714	15.13	1756	14.94	1798	15.59	1840	15.62	1882	18.19
1715	15.11	1757	14.87	1799	15.74	1841	15.70	1883	18.64
1716	15.09	1758	14.85	1800	15.68	1842	15.87	1884	18.57
1717	15.13	1759	14.15	1801	15.46	1843	15.93	1885	19.41
1718	15.11	1760	14.14	1802	15.26	1844	15.85	1886	20.78
1719	15.09	1761	14.54	1803	15.41	1845	15.92	1887	21.13
1720	15.04	1762	15.27	1804	15.41	1846	15.90	1888	21.99
1721	15.05	1763	14.99	1805	15.79	1847	15.80	1889	22.09
1722	15.17	1764	14.70	1806	15.52	1848	15.85	1890	19.75
1723	15.20	1765	14.83	1807	15.43	1849	15.78	1891	20.92
1724	15.11	1766	14.80	1808	16.08	1850	15.70	1892	23.72
1725	15.11	1767	14.85	1809	15.96	1851	15.46	1893[1]	28.52
1726	15.15	1768	14.80	1810	15.77	1852	15.59		
1727	15.24	1769	14.72	1811	15.53	1853	15.33		
1728	15.11	1770	14.62	1812	16.11	1854	15.33		

[1] For seven months ending July 31, 1893.

A New Bimetallism.

From the Pittsburg Gazette, March 1, 1894.

While there are international reports of the revival of a conference of the nations for bimetallism, it is interesting to note that Mr. Anson Phelps Stokes has formulated a practical plan for securing the joint circulation of gold and silver. Mr. Stokes's plan certainly has the merit of originality, and it seems to overcome the chief difficulties heretofore found in securing the joint use of the two metals.

The plan starts with the proposition of a silver coin equal in weight to the five dollar gold-piece, to be called standards. Double, triple, and quadruple standards are also to be coined and bars containing 1000 standards are to be so stamped. The Secretary of the Treasury is to announce monthly from calculations based on the average market values of the metals what number of standards most closely approximates $5 in value. On that calculation for all debts of $10 or upward it shall be lawful to pay one half in standards, at the announced ratio for that month, and one half in gold. Coinage to be free of both gold and silver, when the party depositing bullion deposits an equal value of both metals according to the ratio. The Government can issue coin certificates on deposits one half in gold and one half in standards, and the Government is to redeem the certificates on demand the same way, according to the ratio at the date of redemption.

It will be seen that Mr. Stokes's plan makes silver circulate at its gold value. At present the standard would not much exceed in value 14 cents. But the debtor would have to pay just as many of them as would equal in value one half his debt. If the silver standard rose in value the debtor would not suffer, but would have to pay just as many less of the coins to cancel half of the debt. The appearance and disappearance of one or the other of the metals as they separate in value seem to be fully provided against, and as a relief for the present situation the increased use of silver would advance the price of that metal somewhat, while the plan by reducing the use of gold one half would cause an immense relief to the scarcity of that metal. The use of silver in paying half of debts would be very inconvenient if the metals were actually handled. But, as that is very rarely done, even with gold, the provision of certificates representing the metals in equal values fully meets the difficulty.

. . . .

THE FALL IN PRICES AND THE STANDARD OF VALUE.

From the "Delawarean," April 21, 1894.

We think that no one will deny that the great question before the world to-day is what is sometimes called "The Battle of the Standards," the question whether the common standard of value shall be the yellow metal or the white metal or both—whether it shall be monometallic or bimetallic, of gold or of silver, or of both. . . .

Most of the popular discussion with us consists in calling names, but there have appeared of late some encouraging signs of more intelligent discussion, and in certain periodicals and newspapers there is evidence on both sides of a movement in the direction of serious argument.

If this should ever progress so far that the real points of difference should be fairly stated, and if general education on the subject should ever so advance that those who discuss the subject could agree upon what are the admitted and what the disputed facts, then and then only can we hope for any profit to come from the discussion.

As we promised in a previous issue that we would discuss this so-called "silver question" from time to time, we would like to begin in this article by taking up a disputed point that lies at the threshold of any discussion worth the name—a point so fundamental that if men differ upon that, it is mere waste

of time for them to argue further, for they have no common starting-point.

In order to be practically precise, we will state it as it is stated by the editor of the New York *Nation*,[1] in the issue of the 5th inst., in an article in which he combats the arguments of the bimetallist,[2] Anson Phelps Stokes. He quotes Mr. Stokes as saying that "the general demonetization of silver and the great reduction in its purchasing power have caused a general decline in values, and an insufficient metallic basis of currency, making manufacture and trade both uncertain and dangerous," and then squarely takes issue with him as follows: "Now this fundamental proposition of Mr. Stokes's is totally denied by the monometallists." . . .

"They say, with one of the British delegates to the Monetary Conference, that the whole silver movement is simply a preposterous attempt to keep prices up when science, art, invention, and discovery are knocking them down; that the fall in silver has had no more to do with the decline in prices than the fall in wheat," etc.

. . . .

This counter statement of the monometallic editor is the disputed proposition which lies at the threshold of all argument on the subject of the standards—"Has gold appreciated and is it still appreciating?" Does the general decline in values (which no one denies) indicate a rise in the value of gold, or is the general decline caused by

[1] See note, page 117. [2] See note, page 118.

the progress of "science, art, invention, and discovery, which are knocking them down, so that an attempt to prevent it is a preposterous effort to stop the progress of civilization?"

It seems to us that the consideration of a few simple and elementary principles and definitions of economic science will show the fallacy involved in this counter-statement, and will answer these questions to the satisfaction of any one who really cares to get at the truth of this matter, and will apply his mind to them closely and carefully.

In the first place, there is nothing mysterious or sacred about gold. It is a commoditity just as iron and wheat are commodities, and being a commodity, its value must be, as it always has been, subject to variation in accordance with the universal law of supply and demand, just like that of other commodities, although generally its fluctuations have been slow.

This is an elementary proposition which, stated in the abstract, no one pretends to dispute; at least we have never heard of any economist doing so. If, for instance, to make the point plain, gold fields should be discovered in the unexplored regions of Matabeleland of such richness and extent that it could be hauled out by the ton, it is manifest that under such a tremendous increase in the supply, and the sudden flooding of the markets with the yellow metal (the demand remaining the same), it would suffer a sharp decline in value. But the question immediately arises: How would

this decline in value show itself? What would be the evidence of it? It might be brought as ballast in every incoming ship, and yet if the laws remained the same it could all be taken to the mints and every twenty-five and eight tenths grains of it, 900 fine, could be coined into a gold dollar, and in this shape, being a legal tender, would be worth just as much as it is to-day for the payment of debts.

What evidence then would we have that gold had declined in value?

To that the answer comes, from any one who for a moment reflects, that those possessing other commodities would demand more grains of gold, more gold dollars in exchange for them; which is only another way of saying that there would be a general rise in values—a rise proportionate to the increase in the supply of gold. In other words, it is manifest that there is only one possible way to measure fluctuations in the value of gold, when it is the sole standard of value, and that is by the fluctuations in the gold price of other commodities.

. . . . . .

One moment of clear thinking would seem sufficient to show to any reasonable creature that if "the progress of science, art, invention, and discovery" had happened to be during the last twenty years in such a direction as to produce the chosen commodity—gold—in such increasing quantities and with such diminishing expenditure of the human labor unit as to keep pace with the increased

production of every other commodity, including silver, and also to keep pace with the suddenly increased demand for it created by the demonetization of silver, which made it the sole standard of value, then there would have been no decline in values, and " the march of human progress " would not have been in the direction of cheapness.

And, furthermore, if there had been the discovery of some new and richer California, all other things remaining the same, there would have been a general rise instead of a decline in prices, and we would have had the progress of "science," etc., etc., in the direction of dearness instead of cheapness.

So we see that the only sense in which "the progress of science, art, discovery and invention" can be said to affect the cheapness or dearness of commodities—can be said to cause a rise or decline in their value measured in terms of gold, is by the *inequality* of its action, by its failing to operate upon the production or supply of gold alone, whilst affecting the production of all other commodities, in other words, by the limitation of its action.

. . . .

[1] *The Nation* and other papers that have criticised my plan without quoting its essential features, have caused some misunderstanding of the intent and effect.

[2] I am a Joint-Metallist, and I am proposing to apply joint-metallism only to *future* contracts. I am not a bimetallist in the sense of wanting to open the mints to silver at an arbitrary permanent ratio differing greatly from the relative costs of producing the precious metals.

Joint-Metallism would, however, enable us to arrive at substantially the true economic ratio which is the relative cost of production of gold and silver in the poorest mines that could be worked at a profit when both metals had equal access to the mints.

This economic ratio would not often change after it thus became established.

A. P. S.

PART II.

JOINT-METALLISM *vs.* BIMETALLISM AND MONOMETALLISM.

JOINT-METALLISM *vs.* BIMETALLISM AND MONOMETALLISM.[1]

"Bimetallic money is formed by admitting gold and silver to free coinage and making each an unlimited legal tender at a certain relation in value to the other."

PRESIDENT ANDREWS.

Monometallic money is formed by admitting one precious metal alone to free coinage[2] and making it the only unlimited legal tender.

Joint metallic money is formed by coining silver coins of the same weight as gold coins, admitting gold and silver both to free coinage when presented together, in quantities of equal value, according to a

[1] See preface to Second Edition.

[2] Under "free coinage" a small mintage charge (seigniorage) is made. This amounts on gold to about one sixth of one per cent. in England, more than one fifth of one per cent. in the Latin Union, and one half per cent. (maximum) in Germany. It amounted to two thirds of one per cent. on silver dollars in the United States prior to 1873.

Government ratio declared periodically, as being that integral number of standard silver coins which, in the market value of the silver they contain, most nearly equals a standard gold coin of like weight; and making a gold coin, plus such number of these standard silver coins as shall be equal thereto, according to the current Government ratio, legal tender as twice the amount of the gold coin, for all debts contracted after a fixed future date.

In the United States the Treasury would receive these silver coins and gold coins, when presented together in quantities of equal value, according to the current Government ratio, and issue therefor Joint Legal-Tender Currency Certificates, payable half in gold and half in such quantity of these silver coins as may be equal thereto, according to the Government ratio current at the time of presentation.

Joint-metallism would continue the decimal system here, and permit a continued use of our present silver coins. These are now token money. When

the ratio becomes settled it may be best to recoin the 50-cent, 25-cent, and 10-cent pieces, so that they may contain nearly full intrinsic value. No more silver dollars ought to be coined. After a time all our silver dollars could be converted into silver standard coins, and multiples thereof.

A silver coin as heavy as $5,000 in gold would be more suitable than silver dollars for deposit in the Treasury.

Under joint-metallism the minting charge might provide a fund to meet any possible Government loss from decline in silver.

In the United States, most of the new silver and gold coins would be deposited in the Treasury, for the people in this country prefer to use sound convertible paper money, instead of coin, for all sums of one dollar and over. Among us, gold coin is seldom seen in common use, and five sixths of our silver dollars remain in the Treasury, while the circulation of the remaining one sixth is confined mostly to colored laborers in a few States.

Joint-metallism conforms to the principle of our Constitution that gold and silver shall be our legal tender.[1]

It promotes the use of silver equally with gold as the metallic basis of currency, making that basis adequate without impairing the obligation of contracts.

It conveniently adjusts changes in market ratio by altering the number of silver standard coins to equal a gold standard coin of the same weight. These alterations can be made more or less frequent and exact according to whether a larger or smaller gold coin be taken as the gold standard coin.[2]

It permits nations establishing it to continue to use their own present gold coins and subsidiary silver coins, while it tends to the ultimate establishment of international gold and silver coins, and

[1] "I am certainly of opinion that gold and silver, at rates fixed by Congress, constitute the legal standard of values in this country, and that neither Congress nor any State has authority to establish any other standard or to displace this standard."

DANIEL WEBSTER.

[2] Such a proportion as 3 gold standard coins to equal 100 silver standard coins might also be admissible.

promotes clear thinking and understanding of what money really is.[1]

It avoids entirely the principal accusations against bimetallism, which are : (1) A dishonest impairment of the obligation of existing contracts. (2) A ratio that would be, at times, very different from the market ratio. Most of the arguments against bimetallism and against monometallism do not apply against joint-metallism.

It recognizes the principle that honest money must be " an equivalent as well as a measure."

It makes the measure of value more just and more stable because based on both precious metals jointly.

It prevents speculators from monopolizing the metallic basis of money. It gives a proper elasticity to the volume of the metallic basis of currency, because the production of silver[2] can always be largely

[1] Money is a potentiality or stored up and readily available energy (see page 20).

[2] P. 25. "Surely there is a vein for the silver and a place for the gold."

and promptly increased by labor, while the production of gold cannot.

Under joint-metallism, the relative coinage values of gold and silver would be neither permanently nor arbitrarily fixed; but would be variable according to their relative market values. This would obviate the present chief causes of disturbances in trade and finance; for these disturbances have resulted principally from a large change in the relative market values of gold and silver, while no provision had been made for changing the coinage ratio.

It is impossible, now, to determine the most proper ratio except by giving to both the precious metals equal access to a mint. The question of the ratio to be fixed arbitrarily, under present conditions, might break up any international convention. But if gold and silver together had thus equal access to the mints of even the United States alone, there would be established, soon, between them the true economic ratio of values, viz.: the relative costs of production in the poorest mines

of gold and of silver that could be worked at a profit.

The relative market values would then seldom change, and the Government ratio would probably not have to be changed for years, perhaps not for centuries. If, owing to discoveries of mines or to improved metallurgy, the relative production of one precious metal were increased, whenever this appeared sufficient to affect the relative proportions of the world's stock of gold and silver, then one metal would have a tendency to decline in price; but against this tendency would be the knowledge that with any decline in price a larger proportion of this metal would be demanded at the mint and in payment of debts. Moreover, the market price of each being based on the two metals jointly, their relative fluctuations would be lessened, and besides this, the fact that a law was established which provided for adjusting the Government ratio to correspond with fluctuations in the market ratio, would have a strong tendency to obviate these fluctuations and

to prevent speculative attempts to monopolize either of the precious metals.

An international agreement would be advantageous but not necessary to joint-metallism.

The establishment of a legal coinage ratio by France, in 1803, was found sufficient to overcome the variations in the relative costs of production of the two precious metals so far that for sixty-two years the coinage ratio of 15½ to 1 was maintained and the mint of France kept open at this same ratio, during this long period of most remarkable fluctuations in the production of both gold and silver.[1]

This fact does not contravene the law that market values are governed by supply and demand. It is an excellent illustration of the law. The principal demand for precious metals is for coinage. A coinage law can increase or diminish the demand for a precious metal and thus affect its market value.

The writings of John Locke and others

[1] The French coinage was at times all gold and at times all silver. Joint-metallism would prevent such alternation.

of his time in favor of a monometallic standard, because of the difficulty of fixing and maintaining a just ratio, distinctly state that the standard must be *silver*. It is astonishing that many gold monometallists quote Locke without mentioning this. Locke wrote: "Silver therefore and silver alone is the measure of commerce . . . The fittest for this use of all others is silver; all other metals, gold as well as lead, are but commodities." And that gold is "not the money of the world nor fit to be so." What I have called joint-metallism was not then invented. But if Locke were living now, it may fairly be presumed from his writings that he would welcome my plan. Before him Oresme, Copernicus, and Bacon, and after him Newton and many other great authorities acknowledged the importance of trying to maintain the coinage of both metals at the market ratio, but they did not hit upon the plan of joint-metallism. Although bimetallism was in general use throughout the civilized world until 1873 (the mint of France being open to both

metals), it is still necessary, in popular discussion, to reiterate some oft repeated historical statements and well established monetary principles.

"The fall of the Roman Empire . . . was in reality brought about by the decline in the gold and silver mines of Spain and Greece. . . . And as if Providence had intended to reveal in the clearest manner the influence of this agent in human affairs, the resurrection of mankind from ruin which these causes had produced was owing to the directly opposite set of agencies being put in motion. Columbus led the way in the career of renovation; when he spread his sails across the Atlantic, he bore mankind and its fortunes in his bark. The mines of Mexico and Peru were opened to European enterprise."—ALLISON'S *History.*

"The value of money, other things being the same, varies inversely as its quantity."—JOHN STUART MILL.

"Money has to serve not merely as a medium of exchange, but also as a fair and permanent record of obligations ex-

tending over long periods of time. In this great and fundamental requirement our existing currency totally and lamentably fails."—A. J. BALFOUR.

"Credit cannot permanently supplant money."

All honest and permanent money must have an adequate metallic basis, as is shown by history.

Freight on gold and silver coin and on bullion is by value, not by weight.

Index number tables show how commodities have generally declined since the decline in silver.

Since the discovery of America the world's total production of gold and silver has been in weight about 5 per cent. gold and 95 per cent. silver.

Gold is somewhat more durable than silver.

A single year's production of gold or silver has little effect on the market values of the world's stocks, which are the accumulation of thousands of years.

The coinage ratio of 15½ to 1 having been fixed by France, April 6, 1803, for

seventy years thereafter the relative market values of the two precious metals in London did not vary therefrom more than 3 per cent. for any year (excepting 1808 and 1812, when the variation was less than 4 per cent., and 1813, when it was less than 5 per cent.[1]), although the relative production of the two metals varied enormously, being some years, in value, three times as much silver as gold, and some years only about one fifth as much silver as gold.

France long stood alone, but some other countries afterwards adopted her ratio in their mints, and in 1865 Belgium, Italy, and Switzerland joined her in forming the "Latin Union," which was joined by Greece in 1867, and continued free coinage at the ratio of $15\frac{1}{2}$ to 1 until 1873.[2]

[1] Napoleon's wars, and the cost and risk of transportation, and the suspension of specie payments in England account for most of this variation.

[2] The Final Report of the Royal Commission on Gold and Silver, 1888, shows that all the twelve commissioners, the monometallists as well as the bimetallists, agreed in the following statement: "Sec. 193. Nor does it appear to us *a priori* unreasonable to suppose that the existence in the 'Latin Union' of a bimetallic system, with a ratio of $15\frac{1}{2}$ to 1 fixed

By this time improvements in metallurgy, etc., had so greatly reduced the cost of producing silver that the "Latin Union" coinage ratio of 15½ to 1 could not be maintained. There was very great difference of opinion as to the proper ratio, and some powerful interests hoped to benefit by the appreciation of gold which would result from demonetizing silver.

As the proper ratio could not be determined except by open competition between the metals in the market, and with a mint open to both metals, on the basis of their relative market values, and as no plan for this had been provided, the mints were closed to silver, and general disaster has resulted.

Joint-metallism would obviate such disastrous results, and would always act as an automatic regulator and as a safety valve.

between the two metals, should have been capable of keeping the market price of silver steady at approximately that ratio.

The view that it could only affect the market price to the extent to which there was a demand for it for currency purposes in the 'Latin Union,' or to which it was actually taken to the mints of those countries, is, we think, fallacious. . . ."

Under joint-metallism, when once established, no variation in the market value of gold and silver could ever make a recoinage necessary. Changes in the relative market values of the precious metals would only diminish or increase the number of standard silver coins that, together with one standard gold coin of same weight, should be legal tender as twice the amount of the gold coin, for debts contracted after a fixed future date.

Bimetallism, as commonly advocated, has the serious defects that a certain ratio is arbitrarily fixed without proper provision for keeping the ratio at all times just, and that it would be unjust to creditors or to debtors, and more plainly so as regards debts incurred before, but payable after, the law should go into effect.

This unscientific bimetallism with a fixed empirical ratio might be a constant menace to the whole community. For while the sanction of a legal ratio is able to overcome small changes in the relative costs of producing the two metals, it is

powerless when changes are great, and as soon as it is seen that either gold or silver coin is likely to command a premium in any country, it is withdrawn from circulation, and panic commonly results.

Besides this, the fixing or the altering of the ratio must become a dangerous political issue unless it be decreed that it shall be adjusted always upon the basis of market values.[1]

From the beginning of civilization gold and silver have been used about equally as the money of the world.[2]

Joint-metallism would continue this beneficent parity, and would provide a sufficient metallic basis of money to check the *illegitimate* decline in prices of commodi-

[1] Numerous writers have recognized the fact that there would be some advantage in a flexible ratio. The following plans have been proposed: Frequent recoinings at market values. Coins of an amalgam of fluctuating proportions. Gold disks framed in silver disks of fluctuating thicknesses. An agreement among nations generally to join in the purchasing of silver, and in fixing the ratio from time to time, etc. All these plans present difficulties which my plan entirely avoids.

[2] Tables on pages 49 and 50 of the Report of the Director of the Mint for 1893, give the estimated stocks of gold and silver money in the world amounting to $3,901,900,000 gold, and $3,931,100,000 silver.

ties which must continue indefinitely under gold monometallism.[1]

The decline in prices caused by inventions and discoveries is legitimate, and silver has also been affected by inventions and discoveries.

The decline in prices caused by reducing the total metallic basis of money through the demonetization of silver is illegitimate and is working disaster, and must so work. By making gold alone the metallic basis of money, the demand for gold is increased, and thus its market value is increased at the expense of all other commodities.

Those in authority naturally prefer gold monometallism, because it increases

[1] Sir William H. Houldesworth, in criticism of my book on joint-metallism, says: "It is ingenious, but the plan he suggests has one objection. If the supply of either of the precious metals diminished down to the demand in the arts, I do not see how equal quantities of gold and silver could any longer be sent to the mint as required. Again, I do not care for the ratio being determined by proclamation."

Sir William, who was so able and conspicuous a member of the Royal Commission on Gold and Silver, and of the Brussels International Monetary Conference of 1892, of course appreciates the fact that when there is not enough gold for joint-metallism, *a fortiori* gold monometallism will be impossible.

the purchasing power of their fixed salaries; it also increases the purchasing power of the Government revenues without nominally increasing taxation. More iron-clads, forts, and public buildings, etc., can be built and more soldiers employed when the revenues are on a gold basis and commodities at large have declined. The Government also unfairly profits by the issuing of dishonest silver coin. The burden of public debt is also made to appear smaller than it really is.

National debts, like all other debts, can be paid only by surplus profits. We have had many statements published showing great reductions in our national debt, when in reality it would require more of our available surplus products to pay the nominally reduced debt.

A farmer who pays the same tax on his land when wheat is worth 50 cents as he did when it was worth $1.00, does not always comprehend that his taxation has been practically doubled.

The decline in silver is most injurious to the United States:

1. Because we are the largest producers of silver.

2. Because we owe more money than any other people.

3. Because our principal exports are wheat, cotton, etc., which have to be sold in competition with India and other countries whose currency is silver, and where wages and the prices of commodities used by laborers remain substantially as they have been for many years.

Cotton and wheat are sold in England at gold prices for pounds sterling, and thus the world's price is determined.

For every pound sterling which a planter in India receives for cotton or wheat sent to England, he can now employ twice as many native laborers as he could a few years ago, *for their wages remain the same in silver coin,* viz.: one quarter of a silver rupee per day.

In view of this fact as to the reduced gold cost of the production of wheat and cotton in India, owing to the fall in the value of silver, or appreciation of gold, I am unable to comprehend how our great-

est economist, my esteemed friend, the Hon. David A. Wells, can maintain what he wrote in his very valuable book on *Recent Economic Changes*, p. 232: "If the fall in the price of all desirable commodities has been an evil, as not a few seem to believe, it cannot be conclusively proved, in respect to even one article, that any such fall has been *extensively* due to any decline in the value of silver or any appreciation of gold."

If Mr. Wells's views have been modified by the course of events since August, 1889, the date of the preface to that book, it would be of the greatest possible advantage to have a public expression from him now.

These facts regarding the fall in prices of wheat and cotton appear to furnish a complete answer to Mr. Atkinson's demand for the name of any one article in which the variation in price since 1873 may not be accounted for without any regard to the ratio of gold and silver.

If silver continues to decline, much less wheat and cotton will be cultivated in

this country, the wages of our agricultural laborers must fall, and as less of these will find employment in raising wheat and cotton, the competition for employment will become greater in other departments also, and will result, after a period of strikes, etc., in a general decline in wages and a great increase in the burden of debt, and the more so if that debt has to be paid in gold.

Gold monometallism, by diminishing the total metallic basis of currency, and thus causing a continual decline in everything except gold, tends to transform a nation of enterprising farmers, traders, and manufacturers into a nation of wage seekers, with some great money lenders, speculators, and monopolists. For the difficulties and losses of productive enterprise are increased and destructive speculation is promoted.

Business development requires some prudent use of credit. But to incur indebtedness on a gold basis when the world's known stock of gold is less than one eighth of the world's known debts, is

to sell gold short when the short interest is known to be eight times as large as the total known amount of gold in existence.

We are now in danger of another great money panic from the withdrawal of gold from circulation. Under joint-metallism one money metal could not drive out the other, for they would have to be presented together at the mint and would be available together in payment of debts.

Our natural resources and mechanical development must give this country the leading position, even while we may endure much bad fiscal legislation. But if our commerce were relieved from unnatural restrictions, and our currency placed upon the sound, honest, permanent, adequate, and scientific basis of joint-metallism, the final money reserves of the world (the money that can be loaned at the lowest rate) would be held here, and the exchanges of the world drawn in dollars.

There ought to be a commission appointed, consisting of two eminent judges of our highest courts, with, say, David

A. Wells, Edward Atkinson, General Walker, President Andrews, and five eminent financiers and business men, to be selected by these six, with power to call for papers and to summon witnesses, and authority to prepare and recommend a plan for such treatment of silver as would best promote the interests of our country.

The political positions of members of Congress generally preclude their usefulness upon such a commission.

Questions as to votes to be gained or lost in a member's or in an office-seeker's district must be excluded.

The science of money is one of the most profound, abstruse, and subtle that has ever engaged the human mind. Only those who have been trained by special study, and are accustomed to keep their understandings open, and to patiently investigate, and to seek truth as the greatest good, are fitted to settle the question of the best treatment of gold and silver as regards money.

I am confident that such a commission,

as I have suggested, would establish the real facts of the case to the general satisfaction. Like the Royal Commission, which has accomplished more than had ever before been done to elucidate the gold and silver problem, they might present two reports on some points ; but I think they would agree in recommending a plan, and, naturally, I think this plan would be joint-metallism.

To compare large things with small; for a long time it was impossible to arrange for international yacht races, because of different standards of measurements.

The English claimed that length and breadth made the proper standard. We generally claimed that displacement was the proper standard, and some insisted that sail area was the proper standard.

I moved in the New York Yacht Club, February 1, 1883, for a committee to consider the whole subject, and served on this committee. We had many sessions and many difficulties and disagreements. But after thoroughly threshing out the matter,

we agreed to recommend a joint standard of measurement consisting of half the length added to half the square root of the sail area, with some minor modifications; and I presided at the meeting of the club when this report was adopted, May 28, 1883.

The joint system of measurement is now generally approved, although when it was first talked of many thought it absurdly complicated.

It must be admitted that joint-metallism is more complicated than either monometallism or bimetallism. The natural course of development is from the simpler to the more complex. "Clocks are more complicated than hour-glasses." Civilization is more complicated than barbarism. Just legislation is more complicated than

> "The good old rule, the simple plan,
> That he should take who has the power,
> And he should keep who can."

Mr. Wells and Mr. Atkinson above all others have adequately studied and set forth the effects of the increased produc-

tiveness of labor ; but it seems to me they have not sufficiently considered and expounded the effects of the increased "preciousness imparted to gold" by monometallistic legislation.

Walter Bagehot, if living to-day, would be, I think, a joint-metallist. He wrote in February, 1877, shortly before he died :

"*As yet* no one can prove that the permanent value of silver, whether in its relation to gold or to commodities at large, will change so much as to render any alteration necessary."

Since 1877 silver has declined from $1.20 per ounce (the average for that year) to .63 per ounce, November, 1894, and the index number of gold prices of general commodities has declined, according to Sauerbeck's tables (45 leading commodities average per year), from 94 to 65 (to February 28, 1894) ; or, according to the London *Economist's* tables (22 leading articles January 1, 1877, to January 1, 1894), from 88 to 67.

Joint-metallism is strictly a merit sys-

tem, based upon equal opportunities for competition, and upon the limitation of the arbitrary power of the Executive. At present the Secretary of the Treasury has the power to put the country, any day, upon a silver basis. Under that part of the act of 1890 which is still in force, he is authorized to pay out "gold or silver in his discretion."

Civil-Service Reform, Tariff Reform, and many other reforms are bound up with this question of monetary reform.

Gold monometallism increases the attractiveness of official salaries, and thus promotes office-seeking and political corruption.

Countries on a gold basis cannot trade freely with countries on a silver basis, unless the relative values of the two metals are controlled and ascertainable by having, in some great country, a mint open to both gold and silver at some calculable and nearly just ratio.

Mr. Samuel Smith, M.P., has ably shown how gold monometallism is *protection* to "those who enjoy without working at the

expense of those who work without enjoying."

Yes! Monometallists and monopolists are near akin.

Monometallism works injustice to debtors.

Bimetallism might be unfair to creditors.

Joint-metallism would be always just and fair to all.

PART III.

HISTORY OF THE SCIENCE OF MONEY.

HISTORY OF THE SCIENCE OF MONEY.[1]

Nicole[2] Oresme, the fourteenth century college president and political economist, councillor to Charles V. of France, and Count Bishop of Lisieux, appears to have been the founder of the modern science of money. His *Traictie de la première Invention des Monnoies* was written about 1366.

Nicolas Copernicus, the great astronomer, Canon of Frauenburg, and adviser of Sigismund I. of Poland, wrote *Monete*[3] *Cudende*[3] *Ratio* in 1526.

These works are in the Astor Library, where I found them uncut. They are not in the Mercantile Library.

M. L. Wolowski, the very able editor and annotator of the edition of these

[1] See Preface to Second Edition.

[2] He signed his name Nicole, not Nicholas.

[3] He does not use the diphthong æ in this title.

works published by MM. Guillaumin et Cie., Paris, 1864, says in his *Avant-Propos*:

"Les vues de Copernic sur la monnoie se rapprochent beaucoup de celles de Nicole Oresme; ce sont les mêmes aperçus, sains et vigoureux c'est la même entente de l'importance attachée à ce que l'instrument des échanges soit maintenu *droit de titre et de poids*, c'est le même jugement porté sur la nature du pouvoir du prince, en ce qui concerne le règlement de la valeur monétaire. Le rapprochement des indications fournies par ces deux grands esprits donne lieu à une étude aussi féconde qu'attrayante."

Séquin's *Histoire des Évêques-Comtes de Lisieux*, published in 1832, says of Nicole Oresme, "33e évêque et 19e comte.":

"Ce savant évêque, après avoir fait ses études dans son pays, alla à Paris; il fut grand maître du collége de Navarre; il . . . était le plus habile dans les sciences et les beaux-arts, qui fut dans l'université de Paris."

Dubois, Huet, Mézeray, and others bear similar testimony to the worth of

this grand liberal bishop of the fourteenth century, who first translated into French, the *Ethics*, *Politics*, and *Economics* of Aristotle, was commissioned by Charles V. to translate the Bible into French, wrote against the Ultramontanes, was unsuccessfully accused of heresy,[1] and proved himself a master of theology, mathematics, and political economy.[2]

Our people are so inventive, and have such confidence in their intuitive ability to determine any question, that a thorough study of even the bibliology of such a science as that of money is generally not considered necessary for an American lawmaker or economic writer. Even in England, writers on the money question commonly ignore the older continental writers, and continually speak of the law that poorer money will drive out better

[1] On account of the sermon which he preached before Pope Urbain V. and the College of Cardinals, "Sur les déréglements des princes de l'Eglise."

[2] Many other illustrious churchmen have highly appreciated the moral importance of the currency question. In the XIII Century St. Thomas Aquinas was the foremost writer on Political Economy and Currency.

money, as being a great discovery of Sir Thomas Gresham, the councillor of Queen Elizabeth, although the councillor of the French king had plainly written of it 194 years before, and the French Government had considered and acted upon this very view.[1]

Henry Dunning Macleod, a most ultra and intolerant gold monometallist, a voluminous writer on political economics, etc., and whose ability is vouched for by many great English law lords, and to whom Mr. Justice Stephen wrote, "I should doubt whether any one living had studied questions of political economy and the branches of law which relate to it

[1] Regarding the effects of debased money, Oresme writes: "et encores, qui est pire chose, les changeurs et banquiers qui sçavent où l'or a cours à plus hault pris, chacun en sa figure, ilz, par secrèts cautelles, en diminuent le pays, et l'envoient ou vendent·dehors aux marchans, en recevant d'iceulx autres pièces d'or, mixtes et de bas aloy, desquelles ilz emplissent le pays."

Copernicus also stated this law most explicitly as follows: "Cum autem minime conveniat novam ac bonam monetam introducere antiqua viliore remanente, quanto hic magis erratum est vetere meliore remanente viliorem novam introducendoque non solum infecit antiquam, sed, ut ita dicam, expugnavit."

more thoroughly and successfully than you," in a book on *Bimetalism*,[1] lately published by Longmans, has helped the discussion of the gold and silver question by clearly and authoritatively stating the case of monometallism against bimetallism, and by a brief analysis of the monetary writings of Oresme[2] and Copernicus, and a concise summary of some of the coinage views of Gresham, Petty, Locke, Harris, Bacon, Newton, Adam Smith, Lord Liverpool, Steuart, Pole, Herries, Hankinson, Peel, Mill, and other great authorities.

Macleod says: "All these illustrious writers, except those who declared for a single standard, pointed out that the law must regulate the value of the coins ac-

[1] He spells thus "Bimetalism," "Monometalism," "Bimetalist," "Bimetallic," "Monometallic."

[2] Roscher, in German, in 1862, and Wolowski, in French, in 1864, had published more important notes on Oresme's noble treatise, and Wolowski had published, in, 1864 very important notes on the great treatise of Copernicus.

That these works of Oresme and Copernicus have not been translated into English is most astonishing when we consider the wonderful originality and genius they display, and which no summary can adequately represent.

cording to the relative market value of the metals in bullion. This was for a long time attempted to be done; but the attempt was finally abandoned as hopeless, and it only led to constant disturbances in the coinage."

Joint-metallism, when established would "regulate the value of the coins according to the market value of the metals" without leading to "disturbances in the coinage."

That my plan of joint-metallism[1] was not invented when these great authorities wrote, does not invalidate it; other valuable discoveries have also been made since then.

It is interesting to note how the difficulties which these great political economists find in maintaining a just bimetallism are avoided by joint-metallism, which is a scientific and honest bimetallism. Their writings show how strongly many of

[1] See page 121. See also page 5, where the plan was stated in a concrete manner, as was necessary for newspaper publication, but the details as to the gold coin to be selected for the standard weight and the periods to be considered, are of course not essential.

them felt the importance of the general coinage and circulation of both metals and at their relative market values, but that they failed to hit upon the plan of joint-metallism, which compels the use of both together, with ratios always based on their relative market values, without frequent recoinings, and prevents one precious metal from driving out the other.

Of Oresme and Copernicus Macleod says: "Nicholas Oresme, afterwards Bishop of Lisieux, who wrote a *Treatise on the Coinage*, which may justly be said to stand at the head of modern economic literature. . . . But the doctrines maintained by these two great authorities are absolutely identical. They are . . . 5. That the coins of gold and silver must bear the same ratio to each other as the metals in bullion do in the market: . . . They quite perceived the impossibility of keeping gold and silver coins in circulation together in unlimited quantities, at a legal ratio differing from the market ratio of the metals. . . . It was left to the genius

of Petty and Locke to discover that the true remedy for the perpetual confusion caused by attempting to keep gold and silver coins in unlimited quantities in circulation together at a legal ratio differing from the market ratio, was to adopt one metal only as the standard, and to make coins of any other metal subsidiary to it, . . . that the coins should be altered in their weights from time to time to meet the alterations in the market value of the metals. Such a plan is absolutely impracticable. It would possess no element of stability. Every change in the market value of the metals would require a fresh calling in and recoining of the coinage, at an expense and worry which no country could stand. All other remedies being exhausted, there is no resource but to adopt Petty and Locke's plan of Monometalism."

To this I answer that the true remedy is to use the two metals on substantially equal terms according to the plan I have called joint-metallism.

My book, *Joint-Metallism*, appears not

to have been read by Macleod, whose work was published two months after mine. He certainly had no intention of favoring joint-metallism. Indeed he claims that very little metallic money is required for use in the world's trade and commerce.

Macleod is the highest juridical authority on forms and uses of credit, and his very eminence in this department has led him, I think, to a dangerously exaggerated estimate of the position of credits as a basis for currency.

An economist of commanding ability, he is more juridical than judgmatical, a great philosophical writer of history, with a purpose, and more an advocate than a judge.

Macleod mentions, in a note, the edition of the treatises of Oresme and Copernicus published by Guillaumin et Cie., Paris, 1864. But he omits to mention the names of Roscher and Wolowski who had written so ably thirty years before him, regarding those grand old economists. Nor does he mention what Cossa had written in the *Introduction to the Study of Political Economy.*

After noticing other economists of the XIVth century, Cossa wrote :

"Last must be mentioned the most remarkable of them all, Nicholas Oresme, who died in 1382 as Bishop of Lisieux. He wrote his *De origine, natura, jure et mutationibus monetarum* for his pupil Charles V., and afterwards republished it in French. Here is a simple, well-arranged, and clear summary of the theory of money, together with a masterly arraignment of those who were for debasing coin. Roscher, like all the generations of specialists who had read this brief masterpiece, conceived a high opinion of its merits, and his commendation led Wolowski to prepare an admirable edition of it in Latin and French, which was printed in 1864."

Later on in the same work, after noticing a number of writers who had treated of coinage from different points of view, Cossa wrote :

"But none of the authors above mentioned compare in importance with those who dealt with the very same problems from a purely economic point of view.

Nicholas Copernicus, the astronomer, in or about the year 1526, upon the invitation of King Sigismund of Poland, wrote a pamphlet, *De monetæ cudendæ ratione*, which was not published until 1816, and was reprinted and translated into French in 1864 by Wolowski. Copernicus there explains clearly the functions of money, condemning all debasement, as well as the so-called right of dominion (*seigneurage*) He shows the harm underlying all these practices, while he justifies alloy and anticipates Gresham's theorem, strongly favouring also a concentration and simplification of the uttering of coins; and finally he makes a special application of all his views to the conditions actually existing in certain Prussian provinces then under Polish rule."

Macleod prints letters commending his legal ability, etc., from Lords Hatherley, Westbury, Selborne, Coleridge, Penzance, Ardmillan, and Manor, and Lords Chief Justice Bovill, Cockburn, etc., and no more stalwart advocate of gold monometallism could be selected. That Macleod's book

must be greatly to the taste of those who like their gold monometallism hot, a few extracts will sufficiently show.

He writes : "They [Bimetallists] never adduce any real facts and arguments. They do nothing but pour forth torrents of frothy rhetoric and declamation, with abusive epithets on all the solid arguments upon which monometalism has been adopted."

"There is not the faintest shadow of the shade of the ghost of the n^{th} differential co-efficient of a pin's point of evidence in favor of the contention of the Bimetalists. It is absolutely ZERO."

If this is so, one is tempted to ask, "Why do you write a book with the title 'Bimetalism'?" "Why do you not write a treatise to overturn the 'Theory that the Moon is made of Green Cheese'?"

In the following climax, Macleod appeals strongly to such as have "grasped the great central idea" that whatever is (in British institutions) is right.

"And ever since then [1816, when

England adopted the gold standard], England has enjoyed the most perfect system of coinage ever devised by the ingenuity of man."

Of course it is obvious that a non-decimal system with £3 17*s.* 10½*d.* the ounce of gold is ideal perfection!

I need not undertake to reply to some of the strong language used by Mr. Macleod against bimetallists, whom he charges generally with dishonesty and fraud.

We are accustomed to such amenities in America also. Here gold monometallists commonly say to their opponents: "You are not necessarily lunatics. You may be only undeveloped idiots. But it is fair to presume that you are rogues."

The problem of the proper relation of gold and silver to coinage is so important and so abstruse that it has interested many of the greatest minds of the last five centuries.[1]

[1] We have records showing the use of silver coins more than 4000 years ago.

According to an article in the London *Daily Chronicle* of September 24, 1894, Dr. Wallis Budge has lately added to the treasures of the British Museum many clay tablets found at

Charles The Wise referred the question to Oresme, the ablest political economist of his day, and the greatest of all the scholastic writers on economics.

Sigismund I. employed Copernicus to investigate it.

James I. consulted Bacon and Coke about it.

John Locke discussed it with profound ability.

The British Government referred it to Sir Isaac Newton.

And the principal political economists since then have written about it.

But in our enlightened day any newspaper writer or cross-roads politician without knowledge of affairs and unlearned in even the history of the abstruse science

Sippera and Senkereh, about twenty miles from the site of Ur of the Chaldees. Among these tablets are the commercial documents of the firm of Zini-Istar & Sons, who were a large banking and trading firm, and had branches in many towns of Babylonia. The money payments are recorded in silver coin, mostly shekels, but small amounts were paid in "ring money." Some of these records are of the exact date of the Abramic migration (shortly after the invasion by the Elamites), and Messrs. Zini-Istar & Sons were probably "Abram's bankers."

of money, is supposed to know all about it. And a "printer's devil" if asked whether he could write a review of a book on money, or go to Congress to make laws on this subject, would reply as confidently as did the man who was asked whether he could play the piano: "Yes, I suppose so, I never tried."

There is therefore much satisfaction in having to do with so able and well equipped an advocate as Mr. Macleod, even when he exhibits prejudice and want of fairness.

He says the object of his book is "to supply the Monometalists a concise but sufficiently full statement of the facts and arguments upon which their system is founded, and upon which they must defend it; and also to show the Bimetalists the facts and arguments which they have to assail, controvert, and overthrow—if they can—*before they are entitled to a hearing.*" The italics are mine.

Bimetallism, so long as the French mint remained open to both metals, was in general use throughout the civilized world

until 1873. The difficulty with it was that no plan had been devised to change the coinage ratio when there was a large change in the market ratio. Gold monometallism is the experiment which is being tried with such disastrous results.[1]

Again Mr. Macleod writes: "When the Bimetalists are called upon to substantiate their assertions and allegations, as strictly as they would be in a court of law, they will find themselves very much in the case of Shadrack, Mesheck, and Abednego when cast bound into the burning furnace."

Perhaps no more unfortunate quotation for his purpose could be found in the whole Bible, for those Jewish worthies were put into the burning fiery furnace

[1] Throughout all Europe the money standard was originally a pound weight of silver. The name pound, livre, lira, etc., has been maintained while the weight of silver in coins has been greatly reduced by the fraudulent efforts of those in authority to take advantage of the popular error that the value of coins depended to a considerable extent on the stamp. Many writers have exposed this error, but it persists. The only safe course is to have all money based upon gold and silver at their relative market values. Joint-metallism shows how this can be accomplished, honestly and conveniently.

because they refused to worship the *golden idol* which Nebuchadnezzar had set up, and it was their adversaries who were destroyed.

It is remarkable how many of the choicest weapons of the gold monometallists prove to be boomerangs.

Compare with this the noble use made by Oresme of the story of Joseph and the landowners of Egypt and their corn, and of the fable of Midas.

Oresme lived at a period when general ignorance regarding "Origine, natura, jure et mutationibus monetarum" had led to general disaster. He felt the need of a thorough study in order to propose a remedy. Copernicus, in ignorance of Oresme's work, applied the great powers of his trained intellect to the same problem and came to the same conclusions. Others, among whom were Turgot and Adam Smith, without knowledge of the work of either Oresme or Copernicus in this field, investigated, and likewise found, that good money is convenient merchandise, the true weight and fineness of

which are certified to by authority; and that the market values of coins must nearly coincide with the market values of the bullion they contain.

I add three short quotations, one from Oresme 528 years ago, in his old-fashioned spelling, and two from Copernicus 368 years ago, showing the wonderful grasp these men had of questions which are perplexing so many among us now.

It will be seen that their original writings largely sustain much that I have written, although, of course, they did not have joint-metallism in view.

"Le dixiesme chapitre. De la mutacion es proportion de la Monnoie.

"Proportion de l'or à l'argent. Proportion est une comparaison ou habitude faicte d'une chose à ung autre, si comme en proportion de la Monnoie d' or à la Monnoie d'argent, doit estre certaine habitude et proportion en valeur et en pois; car selon ce que l'or est de sa nature plus noble, plus précieux et meilleur de l'argent et à le trouver et avoir plus diffi-

cile, certes il convient et est bien raison que le mesme poix d'or doit beaulcopt plus valoir et estre de plus précieuse estime, en certaine proportion, de l'argent, si comme, par aventure, la proportion de vingt à ung, et ainsi une livre d'or vauldroit vingt livres d'argent, ung marc d'or, vingt marcs d'argent ; et ainsi semblablement du grand au petit ; et aussi est possible de faire une autre proportion de vingt-cinq à trois ou autre semblable évaluacion ; mais toutesfois ceste proportion doit ensuivir le naturel habitude ou valeur de l'or à l'argent, en préciosité ; et selon icelle doit estre ceste proportion instituée, laquelle il ne loist voluntairement transmuer, ne aller contre, ne si ne se peult justement varier, ce n'est pour cause raisonnable, et, par la variacion de celle matière en partie, laquelle advient peu souvant.[1] Si comme, par adventure,

[1] "Verum tamen ista proportio debet sequi naturalem habitudinem auri ad argentum in preciositate et secundum hoc instituenda est hujusmodi proportio. Quam non licet voluntarie transmutare, nec potest jam variari, nisi propter causam realem et variationem ex parte ipsius materiæ : quæ causa raro contingit."—*Latin Text.*

moins se trouvoit d'or que par avant l'institution de la monnoie ne se trouvoit, et lors conviendroit qu'il fut plus chier en comparaison de l'argent, et qu'il fut mué en pris et valeur." ORESME (about 1366).

"Opere precium autem erit quod he due monete unius sint grani, valoris et estimationis et vigili cura prematum reipublice juxta ordinationem nunc instituendam perpetuo perseverent."

COPERNICUS (in 1526),

"Superius dictum est aurum et argentum esse basim in qua residet bonitas monete. Et que de moneta argenti exposita sunt, possunt etiam pro majori parte ad auream referri. Reliquum est ut ex transverso auri et argenti commutandi rationem exponamus. Primum igitur investigare oportet que sit ratio appreciationis meri auri ad argentum merum sivi purum : ut de genere in specie et a simplicibus ad composita descendamus.

COPERNICUS (in 1526).

The following letter appeared in the *New York Tribune*, Nov. 21, 1894.

"*To the Editor of The Tribune:*

SIR: In a late letter addressed to Mr. Shreve, of Virginia, and published to-day, the Secretary of the Treasury says:

"My opinion is that whenever the coinage value of a metal, whether it be gold or silver, is greater than the intrinsic or commercial value of the bullion contained in it, the coinage of that metal, if it is coined at all, should be on Government account only. This is the only way in which the coinage of the depreciated metal can be restrained within safe limits, so as to maintain equality in the purchasing power of the two kinds of coins."

Coinage on Government account was a favorite method of defrauding and oppressing the peoples of Europe for many centuries. That the Government should make a considerable profit on coinage is the worst of all monetary fallacies. Its iniquity was exposed by Cassiodorus in the sixth century, by Oresme in the fourteenth century, and by Copernicus in the

sixteenth century, and later by Locke, Newton, Turgot, Adam Smith, Say, and many other great philosophical writers on money and coinage.

These great authorities saw clearly that coin is only a convenient merchandise, the weight and fineness of which is guaranteed by authority. Oresme, the founder of the science of money, asks how a prince can punish forgers if he cheats by making a profit on coinage.

Coinage of silver dollars on Government account would to-day pay a profit of 100 per cent. Some of the French kings made it pay a profit of several hundred per cent. Such profits, however, always come out of the people, and cannot be tolerated in any free country.

In my book on joint-metallism, I have shown that gold and silver coins should always bear substantially the same ratio to each other as their bullion values, and that this ratio can be maintained conveniently by having a standard silver coin the same weight as a standard gold coin, and simply changing when necessary the

number of these silver coins to be the just and legal equivalent of the gold coin, and that thus silver can be used equally with gold by making both together the metallic basis of a sound, honest, self-regulating and permanent currency, redeemable always half in gold coins and half in silver coins, and always at the relative market values of the precious metals.

It is stated in the newspapers generally that they have received intimations from Washington that the Treasury Department will discriminate against those who try to make payment in Government demand notes for the new bonds.

The history of the science of money shows that it is as impossible for a government to be benefited by discriminating against its own legal tender money as it is for prosperity to be produced by increasing the public debt in time of peace.

ANSON PHELPS STOKES.

NEW YORK, Nov. 20, 1894."

This, so far as I know, is the first time

the name of Oresme appeared in any American newspaper or in any American work. It does not even appear in the *Century Cyclopedia of Names*, just issued. My own copy of his treatise is the only one I ever found here, except the one in the Astor Library, although I have often asked for the work, and have been impressed with the feeling that "the battle of the standards" would finally be waged around Oresme's writings.

On the evening of the same day on which my letter had been printed in that morning's *Tribune*, November 21st, 1894, the *Evening Post* said editorially:

"It is good to read Prof. Hadley's protest in the *Yale Review* against making an occult science of political economy. He most justly says of some recent tendencies in economic literature that they may be part of a science intended to warm the hearts of antiquarians, dialecticians, or sentimentalists, but are only so much weariness of the flesh for statesmen and business men. They take some psychologic speculation and beat it up

into a world-lather, as Carlyle would say, stating conclusions in such language that, as Prof. Hadley says, 'nobody could ever find out, by observation of prices, whether they were right or wrong.'"

One would naturally expect to find the *Evening Post* encouraging most thorough study and research. It was by years of historical study that Locke and Adam Smith, etc., were able to accomplish what they did for the science of economics. And in another article on the same page the *Post* referred to Macleod as follows :

"We reprint to-day in full, from the *Nineteenth Century Magazine*, the most crushing reply to the bimetallists in brief compass which, in our opinion, the controversy has called forth, from Mr. Dunning Macleod, the well-known economical writer. A more trenchant exposure of the bimetallic fallacies we have never read, and it is none the less trenchant for being mainly historical."

Macleod's article fills three and one half columns of the *Post*, and is chiefly a

condensation of his book, lately published, and to which I have referred above. I have expressed my opinion of this work on page 158.

In this article from the London *Nineteenth Century Review* for this month, November, 1894, *The Monometalist Creed*, which I would call a Brief rather than a Creed, it is noticeable that, as in his late book, *Bimetalism*, Macleod still omits to mention even the name of Wolowski, who, in 1864, had so thoroughly disproved the statement that Sir Thomas Gresham was entitled to be considered the great discoverer of what Macleod in 1858 called the Gresham law.

In 1862, Roscher's paper on Oresme's treatise was presented to the Institute of France, and Wolowski's *étude* on Oresme's treatise was read at the annual meeting of the Institute. In 1864, Wolowski printed the original Latin and old French texts, showing that Oresme and Copernicus[1] had understood and declared this law long before Gresham was born. But

[1] Bentkowski published the *Monete Cudende Ratio* in 1816

Macleod continued to claim it as Gresham's great discovery.

Thus in his *Elements of Banking*, published in 1876, Macleod says: "Sir Thomas Gresham explained the cause, whence we have called it Gresham Law."

And even in the last edition of his *Theory of Credit*, vol. ii., published in 1890, Macleod says: "Sir Thomas Gresham first explained the reason to Queen Elizabeth, and therefore we have called it 'Gresham Law of the Coinage,' and this name is now universally recognized."

But in the English edition of Cossa's great standard work, published in 1893, *Introduction to the Study of Political Economy*,[1] the facts as stated by Wolowski are plainly set forth in English, and now in Macleod's book, published in July, 1894, and in his magazine article, published this November, Macleod says that "it ought to be called the law of Oresme, Copernicus, and Gresham," but he does not mention Wolowski's name, although he is plainly much indebted to Wolowski's very able work, and to the important notices it con-

[1] This work contains a valuable bibliology.

tains on Oresme, by Roscher and Wolowski.

I cannot recollect that Macleod has ever mentioned Wolowski, and as Macleod's voluminous works are mostly published without indexes, it is difficult to ascertain. But Macleod's statement in this month's *Nineteenth Century*, that the great treatise of Oresme, "in twenty-six chapters, has *only recently* been brought to the notice of economists," requires to be modified by stating the fact that this treatise was most elaborately published thirty years ago by W. L. Wolowski with very valuable notes.

Authors of great repute among the gold monometallists formerly found much fault with Macleod's "peculiar views," "opposition to Say and Mill on credit, and to Ricardo on rent," etc. He was said to be "at issue with the recognized authorities, and that, too, on points of the first importance." [1]

Luigi Cossa said: "Macleod is a

[1] See *The Readers' Guide in Economics*, etc., edited by Bowker and Iles.

learned, acute, but paradoxical writer, combining good observations on special questions with dangerous errors and old sophisms." And in another place Cossa says: "Macleod has repeated his errors in voluminous productions and then summarized them in *Economics for Beginners.*"

There have been many such criticisms.

None in America know better than the editors of the *Evening Post* the dangerous character of much of the teachings of Macleod and the justness of Cossa's criticisms.

Macleod's favorite theory is that "credit is as good as money." He says: "If a bank can maintain in circulation a quantity of credit in excess of the cash it holds, that is, for all practical purposes, an augmentation of the capital of the country." Mr. Horace White, one of the editors of the *Post* and also of the *Nation*, once wrote, Macleod "confounds capital and credit."

The author and the translator of Cossa's above-mentioned work acknowledged their obligation to the *Nation*, and Mr. White

also had a translation made of Cossa's work on *Taxation* and wrote an introduction and notes for it and copyrighted the book here.

It is interesting to observe how gold monometallists now speak of Macleod's work with unqualified praise. A similar good fortune has attended Giffen, although many thoughtful readers must prefer Giffen, the philosophical writer who expounded the dangers arising from the scarcity of gold, to Giffen, the Secretary of the Board of Trade, gold monometallistic writer on the London *Economist*, and a chief clubber of the bimetallists.

Giffen once wrote: "The fall in prices in such a general way as to amount to what is known as a rise in the purchasing power of gold is generally—I may say universally—admitted."

Again, in 1879: "An appreciation of the money of a country forced on by a government is simply a measure for disabling the productive powers of the people, and making them poorer than they would otherwise be." But this was before

he wrote *The Case against Bimetallism* and *The American Silver Bubble*,[1] etc.

Now I have had for many years the pleasure of working with my most esteemed friends, the editors of the *Evening Post*, for Revenue Reform, Civil-Service Reform, and other good causes, and I well know they would not willingly permit their readers to mistake their real estimate of the general authority of Macleod, and I hope they will state plainly in their columns that this famous English champion of gold monometallism, who is noted for his fierce attacks on many of the greatest economists, is usually to be read with caution.

Macleod's motto sometimes appears to be "Wherever you see a head, hit," and it is unfortunately a characteristic of silverphobia that the patient will sometimes attack everything that comes in his way.

The works of these two great writers, Macleod and Giffen, are very important and indispensable to every student of the money question. It would ill become an

[1] See pages 89, 90, and 91.

amateur like myself to claim to rival them in ability or research.

Besides this I don't object when they overthrow those unscientific bimetallists who want a fixed empirical ratio.

Neither do I object to the masterly manner in which A. J. Balfour and Archbishop Welsh belabor and overthrow the gold monometallists.

I say, more power to their elbows, good luck to their club, golf stick, shillalah, and crosier. The more the mutually destructive fight wages between the gold and the silver champions, the more the way will be prepared for joint-metallism.

In all this discussion, and in all the efforts put forth by our statesmen, capitalists, and great financial newspapers to maintain the diminishing Government gold reserve, the one thing that stands out clearly is the fact that there is not enough gold to form a sufficient basis for the currency, commerce, and credits of the world; and that if we don't want to see this country on a silver basis, it is necessary now to consider some way of

using both the precious metals together, and always at their market values.[1]

I think joint-metallism presents a convenient and sufficient basis, and until this view is shown to be erroneous by facts and fair arguments, I must continue so to think.

[1] See page 66, etc., for an account of some dangers of the present situation.

PART IV.

THE APOTHEOSIS OF CREDIT.

OBJECTIONS ANSWERED AND HONEST LEGISLATION DEMANDED.

THE APOTHEOSIS OF CREDIT.

Macleod's favorite theory is that "credit is as good as money." He says: "If a bank can maintain in circulation a quantity of credit in excess of the cash it holds, that is, for all practical purposes, an augmentation of the capital of the country." And he expresses great admiration for a system of banking based on the use of only five per cent. of specie.

His credit theory has just found a happy illustration in Newfoundland, where there is to-day general bankruptcy, because they have little specie although they have much fish and plenty of notes based on general assets, etc., a kind of security highly appreciated by those who favor the Administration - Baltimore - Canadian system of currency (which may be called, for short, the A. B. C. system), and who will not admit that what is needed is more specie money and less credit money.

The holder of a Newfoundland bank-note will be lucky if he can get fish for it, and then if he wants to buy a newspaper, he can take a codfish out of his pocket and put back three mackerels and two herrings received as change.

Some persons, hearing that rich people get their living by cutting coupons off Government bonds, come to think that a people can live upon the interest of what they owe, and that if the Apostle Paul were living now he would write, "Owe all men everything," instead of "Owe no man anything." But it will not be easy to convince thoughtful people that A. and B., by exchanging their promises to pay, can augment the capital of the country.

Gold and silver are suitable for money; fish and other kinds of merchandise are not. Paper currency based on gold and silver at their relative market values, is good currency. If based on fish or other kinds of merchandise, or on credits, it is generally bad currency. Credits based on sales of wheat, cotton, fish, etc., to re-

sponsible merchants, are more safe than credits based on sales of wild lands and mining stocks to speculators; and the great New York banks will never agree to guarantee the notes of small Western banks, based largely on general assets.

In Canada there are few banks. They know each other well and have numerous branches. But to try to introduce their currency system here, where we have 3756 National Banks,[1] is unwise.

If it were certainly known in what our Government bonds were to be paid, there would be no difficulty in disposing of them abroad.

It is unreasonable to give a creditor the right to choose whether he will be paid in gold or in silver, at a ratio different from the market ratio. It is unreasonable to give a debtor the right to choose whether he will pay in gold or in silver, at a ratio different from the market ratio. But to say that all payments for contracts made after a certain fixed future date shall be payable half in one precious metal and half in the other precious metal, at the

[1] And as many other banks.

market ratio, is just, and this is joint-metallism.

I have shown elsewhere[1] how joint-metallism presents a convenient, honest, safe, and permanent basis for currency. If it were established here, the exchanges of the world would come to be drawn in dollars, and the final banking reserves of the world held in New York.

Mr. Carlisle's monstrously ingenious currency plan combines the objectionable features of a National Banking Trust and an Assessment Insurance Company.

The terrible danger is that it may be forced through Congress by political methods and the plea of Treasury necessities, and without sufficient intelligent and thorough discussion.

If, as in the English Parliament, our head of the Treasury Department had a seat in the National Legislature, and were obliged, rising in his place and in fair and real debate, to answer the attacks of educated economists upon his plan, he would soon be out of office.

If, in a time of peace, we establish a

[1] See page 121.

permanent system of Government credit money, such as that proposed by the Secretary of the Treasury, it may temporarily benefit some banks and speculators, and facilitate some reorganization schemes, and enable promoters to dispose of their holdings, but it will make it impossible for this country to attain the paramount position which our population and developed resources entitle us to assume in the near future.

It is perhaps, too much to expect that all who take part in the legislation upon our currency should be great economists or learned historians. But it may reasonably be expected that they should know the difference between Bullion and Billon, and at least be acquainted with past American monetary experiments.

I see that the debate on the new Currency Bill in the House of Representatives is to be adjourned over Thursday[1] of this week, for the reception of the statue of Daniel Webster, etc.

At that grand function it would be most

[1] Originally printed in the *World* of December 18, and the *Tribune* of December 20, 1894.

appropriate to read Webster's words of warning, as follows:

"I am certainly of opinion that gold and silver, at rates fixed by Congress, constitute the legal standard of values in this country, and that neither Congress nor any State has authority to establish any other standard or to displace this standard." No man ever expressed his appreciation of the real use of credit more strongly than he. But Daniel Webster opposed legal-tender credit money.

We are soon to have a great celebration of the 250th Anniversary of the Capture of Louisbourg. As our Society of the Colonial Wars has done me the honor to appoint me on the Committee for the memorial, I call to mind, among other things, that this first great outside adventure of the American Colonies was the cause of our first large experiment in credit currency. It led Massachusetts to issue two and a half million pounds of credit money which soon fell to nine per cent. of its nominal value, and the State was only saved from financial ruin by the

English ransom of Louisbourg from the Colonies, and by the wisdom of Governor Hutchinson, who secured for his State, payment from England, mostly in silver dollars, so that Massachusetts became known as the "Silver Colony," while the neighboring Colonies kept their depreciated currency, and lost their trade, which was transferred to Massachusetts. Newport then rapidly declined in importance, while the supremacy of Salem and Boston was established.

If our people could only grasp the situation, they would see that we have the greatest opportunity ever offered to any country to control the finances of the world. It is not by locking up and permanently maintaining thirty per cent. of our pernicious greenbacks, to promote the issue of three times as large an amount of paper currency, the volume of which would be more than eight times as great as the gold on which it would be based finally. It is not thus that we can solve our currency question and the world's gold and silver question. But we can

solve these problems by joint-metallism, a plan[1] by which gold and silver together, at ratios always based on their relative market values, may be made the metallic basis of a sound,[2] honest, self-regulating, and permanent currency, without frequent recoinings, and without danger of one metal driving out the other.

[1] See page 121.

[2] Daniel Webster said in the Senate, March 18, 1854: "I hold the immediate convertibility of bank notes into specie to be an indispensable security to their retaining their value."

OBJECTIONS ANSWERED, AND HONEST LEGISLATION DEMANDED.

OBJECTIONS ANSWERED, AND HONEST LEGISLATION DEMANDED.

Criticisms of joint-metallism have been mostly favorable, but some objections have been raised.

All the principal objections seem to be comprised in the following two:

1. That under joint-metallism the mint ratio might have to be changed often.
2. That under joint-metallism the final standard would still be gold.

The reply to the first objection is that the ratio would not have to be changed often, because the world's stocks of the precious metals being the accumulation of many centuries, any change in their relative production for a few years, *e. g.* four times as much gold as silver in value, or four times as much silver as gold in value, makes little difference in the total pro-

portion of gold to silver in the world's stocks.[1]

As Adam Smith pointed out 118 years ago, their "durableness is the foundation of this extraordinary steadiness in price."

When once joint-metallism has been established and the economic ratio has been determined, *i. e.* the relative costs of production in the poorest mines of gold and of silver that can be worked at a profit, then, so long as it is known that both precious metals will have substantially free access to a mint, in some great country, the ratio of their market values is not likely to change for years,[2] and may not change for centuries, and, as I have more fully explained on page 127, joint-metallism, in still other ways, promotes steadiness in the ratio, as, for example, by the provision that, at the mint, gold and silver must be presented together in quantities of equal value.

But whenever it is found that, for a long period of time, the mint ratio is very

[1] See page 88.

[2] See pages 8, 21, 131–133.

different from the relative costs of production, and if it be known that no provision exists to correct this, and that one metal is in danger of being demonetized, and thus the chief demand for it abolished, then there will ensue great fluctuations in the value of that precious metal as compared with the other; and speculation will come to deal with estimates and opinions and conjectures as to whether a mint will again be open to it, and when and at what ratio, etc.

It is precisely this condition that has existed since 1873, and which could not exist under joint-metallism.

In reply to the second objection:

For the sake of convenient statement and illustration, I have commonly spoken of the ratio as being so many silver standard coins to equal one gold standard coin of same weight, and of changing, when necessary, the number of silver standard coins to equal the gold standard coin.

But the principle of joint-metallism is to have all debts, contracted after a cer-

tain fixed future date, payable half in gold and half in silver, *i. e.* in equal proportions of value of each precious metal, or in joint legal-tender certificates for such equal proportions; and a joint-metallic system might be so arranged that the silver standard coin would be more exactly as much the final standard as the gold standard coin. But this would be complicated, and a discussion of anything like compound ratios would be difficult in a popular treatise, and the form of joint-metallism herein set forth is sufficient for practical purposes, for so long as the Government ratio is kept at approximately the market ratio, and while there is an existing provision for changing the Government ratio when necessary, it will not frequently have to be changed.[1]

Supposing the principle of joint-metallism to be adopted this winter or next spring, to go into effect January 1, 1896, the result would be as follows:

Silver would advance in value until the true economic ratio would be reached as

[1] See page 127.

nearly as could be generally estimated with the knowledge that both precious metals were about to have substantially equal access to our mints. So by January 1, 1896, or soon thereafter, the relative market values of gold and silver would become settled, and the Government ratio would then probably not change for many years.

It is also to be remembered that while the law would provide for payment in gold standards and silver standards jointly, the actual transactions would be in legal-tender joint certificates. The buyer or seller would not be affected to any considerable extent by any change in the ratio, except that the *security* pledged for the Government legal-tender joint certificates might possibly be affected to the extent of about one and one half per cent.[1] at any time of altering ratio, but this is too remote to have any practical bearing on the question so far as the buyer and seller are concerned. The Government would assume a small risk for

[1] See page 6.

which the minting charge (seigneurage) might be made to pay.[1]

It is also to be noted[2] that joint-metallism permits the continued use of dollars and cents as the terms to be used in contracts and in accounts, and permits the continued use of our present subsidiary coins.

Silver standard coins need not be used at all as small change, although they might be so used conveniently, in some circumstances, as, for example, in case the gold standard coin should be the $5 gold piece, and the ratio should become fixed at 1 to 20, the silver standard would be worth exactly 25 cents, or at 1 to 25, it would be 20 cents, at 1 to 30, one sixth of a dollar, or at 3 to 100, 15 cents, etc., etc.

It is probable that by January 1, 1896, or soon thereafter, other nations would follow our example and open their mints to silver on a similar basis.

[1] See pages 7 and 123. In Australia the Government makes a profit out of permanently guaranteeing land titles for a charge of one eighth per cent.

[2] See page 122.

I do not feel called upon to refute some objections which show plainly that the writers have not carefully considered what I have fully explained in preceding pages. As to those who object that joint-metallism is bimetallism, I must refer them to pages 118, 121, 125, 134, 147, etc.

I do not attempt to deny that I am a bullionist in the sense of holding that all Government money should be coin, or readily convertible into coin.

The enormous business, finances, and credit of England are on a bullionist basis, for the uncovered Bank of England notes, limited to £15,000,000, are comparatively inconsiderable.

The United States have set an example to the world in paying off a large part of a Government debt.[1] This was a prepayment. If we paid off the greenbacks, which are a demand debt, we could place our finances in a position which no other nation could attain.

Now that we can export largely iron and other manufactures, as well as grain,

[1] See page 137.

cotton, and other produce, we have the opportunity to take the foremost financial position, with all the advantage and profit which this implies.

But to accomplish this our national money must be based strictly on the only possible sound and sufficient basis, the two precious metals together, limited by the quantities in existence and the costs of production.

Credit can then have its full legitimate development.

But credit money cannot be suitable money with which to do the world's business.

Joint-metallism would be most suitable for the world's business, aud contracts under it would be more safe as well as more just.

Mr. Carlisle came to New York and declared for sound money—specie or paper based on specie,—a just and true measure of value, etc. His words are quoted on page 84. But as soon as he had induced New York bankers to take his bonds, he declares for credit money. Under the

plea of war necessity, our people have acquiesced in Government credit money, as a temporary expedient. Mr. Carlisle's distinct purpose is, now, to make credit money a permanent institution.

Momentous results now hang upon the decision of Congress and of a President elected upon the distinct pledge contained in his letter of acceptance dated September 28, 1892, as follows:

"Every dollar put into the hands of the people should be of the same intrinsic value or purchasing power. With this condition absolutely guaranteed, *both gold and silver can be utilized upon equal terms in the adjustment of our currency.*"

The last Democratic National Convention declared: "We hold to the use of *both gold and silver as the standard money of the country, and to the coinage of both without discrimination against either metal,*" etc.[1]; and the last Republican National Convention demanded "*the use of both gold and silver as standard money.*"

[1] See page 81.

So late as March 29, 1894, President Cleveland said in a Message to Congress:

"I hope a way will present itself in the near future for the adjustment of our monetary affairs in such a comprehensive and conservative manner as will *afford to silver its proper place in our currency.*"

Honesty in politics and in legislation demands that the foregoing distinct, formal, and solemn pledges be carried out, and that a Bill be passed by Congress and signed by the President *to utilize gold and silver upon substantially equal terms as standard money.*

If they cannot agree upon a Bill for this purpose it is their bounden duty to appoint a commission of competent experts to investigate and to recommend a plan.

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COMMENTS.

BOSTON, May 22, 1894.

. . . I have read your several papers with much interest, and am glad to have them and this new matter in such a convenient and attractive form.

(Signed) FRANCIS A. WALKER.

. . . I have read it with much interest as a + contribution to better knowledge upon the subject of money, a subject, however, which not very many will ever understand nor ever need to, unless they stand in the way of those who do.

Not doubting of the need of the money use of the two precious metals, I am glad to count you on that side.

(Signed) WM. M. EVARTS.

SO. KENSINGTON, 2 June, '94.

. . . It is certainly a much more honest system of bimetallism than the schemes already propounded, but as I disbelieve in any system of international legal tender, and doubt the ordinary meaning given by bimetallists to the appreciation of gold, my mind was not a fertile soil for the seed sown by your book.

(Signed) PLAYFAIR.

TRINITY COLLEGE, DUBLIN, June 2.

. . . The state of the case is that here every thinker is in favor of bimetallism of some sort, every business man against it. The latter will go on jeering at the former for a generation and then will find out that the Professors were right. That is the usual course of history. . . .

(Signed) H. MAHAFFY.

LENOX, MASS., May 22, '94.

. . . It seems to me that you have very cleverly laid at rest *mono* and *bi*, and introduced a flexible *nexus* which unites the two precious metals so that without injury to either they can together make a permanent currency basis. . . .

(Signed) RICHARD GOODMAN.

N. Y. TIMES, May 26, 1894.

. . . A rather striking example of the deep interest which thoughtful men and men of large affairs are now taking in one of the foremost questions of our times.

---

15 LOMBARD STREET, 1 June, '94.

. . . I quite agree with you that the so-called Bimetallism is not really Bimetallism. I fear, however, that there are fatal objections to the purpose of allowing an official to determine the value of the silver coins from time to time.

(Signed) JOHN LUBBOCK.

THE CHELSEA, June 10, '94.

. . . Your suggestion is a valuable contribution to economic thought, and it looks to me as if your idea, carried into practice, would solve the problem of currency.

(Signed) DANIEL GREANLEAF THOMPSON.

June 11, 1894.

. . . I am not wise in the matter of methods, and only an expert would be competent to pass a valuable judgment on the details of your plan. But I thoroughly agree with you that our hard times are due to the attempt to put the business of the world on a gold basis, and that we shall not have any permanent return of prosperity until, in some form or other, we succeed in establishing a standard of currency which will neither appreciate, as gold alone is certain to do, nor depreciate, as silver alone is certain to do. . . .

(Signed) LYMAN ABBOTT.

MARKET DRAYTON, 14 June, 1894.

. . . Indian difficulties must, however, force the silver question upon us before long, and then your ingenious proposal may be a great help towards solving the problem. Some of our leading men, including Mr. Balfour, are much disposed to agree with your view. . . .

(Signed) FRAS. R. TREMLOW.

SPRINGFIELD REPUBLICAN, June 16, '94.

. . . But behind this movement there is a real element of popular sagacity, which finds honest expression in the silent rather than the outspoken desire of many millions not to give up silver as a part of the world's stock of money. Mr. Stokes of New York, who is neither a Republican nor a Populist, nor a crank of any class, recognized this silent preponderation of public sentiment some months ago, and began to print in the New York newspapers some letters on "Joint-Metallism," which attracted attention . . . and thus carried on the discussion with good temper and in a style where pleasant humor is mingled with forcible suggestion, and a candor which no infallibility from the Delphic Oracle to the New York weeklies can be expected to indulge the world with. The merits of Mr. Stokes's plan will be sufficiently discussed before Congress adopts it,—but it has real merits, and contains the element of a just appreciation of the present world difficulty,—which neither Reed nor Lodge nor Harrison even seek to express, and apparently do not see. . . .

DOWANHILL GARDENS, GLASGOW, 19 June, 1894.

. . . It is a most suggestive contribution to a subject which is now creating as much interest in Great Britain as it does in its parent country. . . .

(Signed) W. SMART.

N. Y. COMMERCIAL ADVERTISER, July 23, 1894.

. . . There is much ingenuity in his plan and his supporting argument.

ROCHESTER CHRONICLE, June 26.

. . . The book is well and intelligently written, and has some novel ideas. As a contribution to the literature of a subject of world-wide interest it is well worth reading. . . .

INDIANAPOLIS JOURNAL, July 27, 1894.

. . . The book is an interesting contribution to the currency question.

August 3, 1894.

I have read your book on the silver question with very great interest. . . .

(Signed) C. SCHURZ.

South Eagremont, Aug. 16, 1894.

. . . It occurred to me, on looking at your book when it was first issued, that its citations looked inviting, and that probably your own part was better than the citations, so I bought it. I have it here on my vacation. I think you have performed a very useful and distinct public service; you have presented a plan the most practical of anything I have seen suggested for the solution of a question, beset, from whatever point we regard it, with obvious difficulties. . . . You have answered *all* the criticisms, and your citations admirably back you up. The book is one that I shall put with those that I most frequently have occasion to refer to on subjects of national interest. . . .

(Signed) GEO. R. BISHOP.

CONCORD, December 11, 1894.

"Joint-Metallism" is charming. . . . As in his first edition, now much enlarged, Mr. Stokes shows good humor, good sense, and a competent knowledge of his subject. . . .

(Signed) F. B. SANBORN.

LEICESTER, December 16, 1894.

. . . The importance of the question you so ably discuss cannot be overestimated.

(Signed) JOHN E. RUSSELL.

133 East 35th Street, NEW YORK, December 17, 1894.

. . . The matter of "Joint-Metallism" is one which I have, for a long time, been desirous of making a study of; it enters as so large a factor into serious current questions that a man who professes to know anything about his day and country ought to have at least a degree of information respecting it.

(Signed) C. H. PARKHURST.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,

WASHINGTON, December 19, 1894.

. . . Your valuable book on the subject of "Joint-Metallism," in my humble opinion, is the best book on this subject—a subject of vital importance to the prosperity of the people of this country.

(Signed) W. T. HARRIS,
Commissioner.

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